County Borough of Blackpool.

ANNUAL REPORT

OF THE

MEDICAL OFFICER OF HEALTH

FOR THE YEAR 1910,

BY

E. W. REES JONES,

M.D., D.P.H.,

Medical Officer of Health, School Medical Officer, and
Medical Superintendent to the Infectious Diseases Hospital.

Blackpool :

Printed at the "Herald" Office, Birley Street.

— 1911. —

HEALTH COMMITTEE,

1910-11.

Mr. Councillor Broadhead, J.P. (Mayor).
Mr. Councillor Hampson, J.P., Chairman.
Mr. Councillor Hill, J.P., Vice-Chairman.
Mr. Alderman Heyes, J.P.
Mr. Alderman Mather, J.P.
Mr. Alderman Ward, J.P.

Mr. Councillor Bamber
,, ,, Bancroft, J.P.
,, ,, Bean
,, ,, Brown, J.P.
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Mr. Councillor Eaves, J.P.
,, ,, Ellis
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,, ,, Gath
,, ,, Gorton
,, ,, Hardman
,, ,, Iredale, M.B., &c.
,, ,, Prichard, L.R.C.P., &c.

MEETINGS :—Usually the Third Wednesday of the Month.

HEALTH GENERAL SUB-COMMITTEE.

Mr. Councillor Broadhead, J.P. (Mayor).
Mr. Councillor Hampson, J.P., Chairman.
Mr. Councillor Hill, J.P., Vice-Chairman.
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Mr. Councillor Bean
,, ,, Cartledge
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,, ,, Hardman
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Mr. Councillor Hill, J.P., Vice-Chairman.

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,, ,, Cartledge

Mr. Councillor Iredale, M.B., &c.
,, ,, Prichard, L.R.C.P., &c.

To the Mayor and Council of the County Borough of Blackpool.

GENTLEMEN,

I herewith submit the Health Report for the year 1910. I regret its late appearance, but this is due in the first place to the fact that during the early portion of the year we were in the process of. removal of offices, and I was unable to gather together all papers containing the information requisite for the preparation of the Report, and in the second place to the fact that the Official Census figures appeared while I was preparing the Report, and necessitated a re-casting of all the Vital Statistics.

As in previous years the Report is divided into four portions:—(1) Vital Statistics, (2) Infectious Disease, (3) General Sanitary work, and (4) Meteorology.

A large amount of work has been done in the department during the year, and is detailed in the body of the Report. No effort has been spared by the Officials of the department to maintain the salubrity of the town.

The Official Census returns revealed a population somewhat below our expectations, but the enumeration takes place at a period of the year unfavourable to Blackpool.

The Mortality Statistics will be found at a satisfactory level, viz.:—a corrected Death Rate of 12.47 per 1,000, an Infant Mortality Rate of 104 per 1.000 births, and a Zymotic Death Rate of 0.73 per 1,000.

The most striking feature about the incidence of Infectious Disease is the small number of cases of Enteric Fever which have been notified, viz.:—12. This is the lowest yearly number recorded in the history of the Borough.

The New Offices are now in full occupation by the Health and Cleansing Departments, and facilitate greatly the work of the respective staffs.

As in previous years, the Chief Sanitary Inspector and the Chief Clerk, with their assistants have co-operated with me in an enthusiastic and able manner in carrying out the work delegated to the Health Department.

I have the honour to be, Gentlemen,

Your faithful Servant,

E. W. REES JONES.

July, 1911.

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County Borough of Blackpool.

STATISTICAL SUMMARY, 1910.

SITUATION: Latitude, 53° 49′ N.; Longitude, 3° 3′ W.

Area of Borough (exclusive of foreshore)	3,495 acres
Area of foreshore	478 acres
Population (Census, 1st April, 1901)	47,348 persons
Persons per House as per Census	4.766

	1909.	1910.
Rateable Value (General District Rate)	£498,598	£508,255
Do. (Borough Rate)	£509,255	£518,787
Number of Dwelling Houses on Rate Book	13,194	13,568
Do. do do empty	200	207
Population of Residents estimated at middle of year from number of inhabited houses	61,450	60,113
Density of Population (persons per acre)	17.58	17.20
Number of Births	1,026	1,006
Birth Rate (per 1,000 inhabitants)	16.70	16.74
Number of Deaths	864	754
Death Rate (gross, per 1,000 inhabitants)	14.06	12.54
Number of Deaths of Visitors	85	68
Death Rate (corrected for Visitors)	12.68	11.41
Do. (corrected for age and sex distribution; factor for 1901 Census 1.093)	13.86	12.47
Number of Deaths from seven principal Zymotic Diseases	71	49
Zymotic Rate (per 1,000 inhabitants)	1.16	0.82
Do. (corrected for Visitors)	0.99	0.73
Number of Deaths of Children under one year of age	114	110
Infantile Mortality (per 1,000 Births)	111.11	109.34
Infantile Mortality (corrected for Visitors)	103.31	104.37

PRELIMINARY.

A circular from the Local Government Board, dated November, 1910, deals with the subject of the Annual Health Reports. It states that these reports being for the information of the Board and County Council as well as the local Council, there should be in each report a detailed statement of all local circumstances, and while these details may seem superfluous for the latter they may often be needed by the former bodies. This circular specifies the following subjects upon which, amongst others, remarks should be made:—Physical features, chief occupations, house accommodations, water supply (with special comments on plumbo-solvency), milk supply, food supply, sewerage and drainage, scavenging, disposal of sewage, nuisances, bye-laws, sanitary conditions of schools, infectious disease, the control of tuberculosis, infant mortality, medical inspection of school children, vital statistics, etc.

AREA.

The Municipal Borough of Blackpool comprises the township of Layton-with-Warbreck, part of the township of Marton, and that part of the township of Bispham-with-Norbreck known as Bispham Hawes. The following is the area of the Wards exclusive of the foreshore:—Claremont 689 acres, Talbot 540 acres, Bank Hey 49 acres, Brunswick 520 acres, Foxhall 686 acres, and Waterloo 1,011 acres.

DENSITY OF POPULATION.

The mean density of population for the whole Borough is equal to 17.20 persons per acre:—In Claremont Ward it is 15.76; Talbot Ward, 23.42; Bank Hey Ward, 34.61; Brunswick Ward, 18.39; Foxhall Ward, 25.30; and Waterloo Ward, 7.91.

ELEVATION.

The mean elevation of the Borough is about 28½ feet above sea level, and varies between about 97 feet at Warbreck Hill, and about 9½ feet in the field north of Bloomfield Road (West).

Blackpool presents the curious condition that the main direction of the natural drainage is away from the sea. Commencing at the north end, there is a depression near the Gynn Inn, not extending far inland, and then the land rises to the top of Warbreck Hill, with a short slope towards the sea, and a longer slope inland. There is a long slope also in a southerly direction to about the Manchester Hotel, where the main sewer outfall is situated. South of this, to the boundary between Blackpool and St. Annes, the surface is very flat, and averages only about 20 feet above sea level. The main natural drainage of the northern part of the Borough is by means of a watercourse, known as the Layton Dyke (for part of its course the boundary between Blackpool and Hardhorn), into Marton Mere, and thence into the Wyre, and thus into the sea at Fleetwood.

GEOLOGY.

The town may be roughly divided into two portions ; the first being that north of the Central Station, and having a subsoil of glacial boulder clays, the two beds being separated by sands and shingle, together at Norbreck reaching more than 100 feet in thickness, and resting on an ancient plane of marine denudation cut in the new red marls which, east of Fleetwood are salt bearing, the rock salt being thicker than any in Cheshire. The second, which lies south of the Central Station, consists of peat, lying on the glacial drift. This bed of peat is of varying thickness of 10, 20, or even 30 feet, being overlain with a greater or less thickness of blown sand. North of Blackpool it reappears at Rossall, and is associated with a submerged forest.

The boulder clay subsoil extends beneath Claremont, Talbot, Bank Hey, and a portion of Brunswick Ward, and also the easterly portion of Foxhall Ward. The portion of Brunswick Ward from the Central Station to Princess Street, and to a short distance east of the coast railway line, has a peaty subsoil, which, in this locality, comes nearly to the surface, and is of variable depth, rendering the ground very treacherous in places. The remainder of Foxhall and Waterloo Wards has a good depth of blown sand overlying the peat, except in isolated places. In parts of this portion of the Borough the sand is very fine, and in the ground it has almost the consistency of mortar.

SEWERAGE.

The District is drained as follows:—

(i) By the chief system of sewers which drains by gravitation the Borough except those portions mentioned below. This empties into a large sewer chamber, under Rigby Road and Tyldesley Road, which is egg-shaped, being thirteen feet in vertical diameter, and nine feet across at its widest part.

The Lytham Road Sewer, which is, for about one-third of its length at the lower end a 3ft. by 2ft. 6in. brick culvert, and at its upper end a pipe sewer varying from 15in. to 12in., enters this chamber from the south, and the Bonny Street culvert enters it from the north, as well as the old culvert beneath the Promenade, whilst the inland main sewer empties into it from the east.

(ii) A small sewerage system which carries the sewerage from Little Layton by gravitation into a tank situated in a field east of the Cemetery, whence it is pumped daily into the terminus of the inland main sewer in Layton Lane, down which it flows by gravitation.

(iii) The drainage from the district east of the portion of Lytham Road south of the South Shore Station, and east of the railway line south of the Destructor, extending inland to Middle Lane and Central Drive, flows by gravitation to a tank at the Destructor, whence it is pumped into a new sewer chamber under the extension of Rigby Road, connected to the old one, whence sewage can flow by gravitation to the sea.

(iv) The district east of Middle Lane and south of Waterloo Road is drained by gravitation to a pumping station at the corner of Waterloo Road and Bloomfield Road, whence it is pumped into the tank at the Destructor mentioned under (iii).

Iron and steel outfall pipes, each three feet in diameter, are laid down seawards for a distance of 950 lineal yards from high-water mark, the sewage being discharged through the northerly pipe, and the

Spen Dyke surface water being discharged through the southerly one. Valves fixed in a pen-stock chamber beneath the Promenade, serve to keep all sea water from the sewage chambers and sewers whilst the outfall is tide-locked. Sewage is discharged immediately the level of the sea is below the level of the sewage in the storage chamber, until 1½ hours before time of low water, when the valves are again closed. Both the Sewer outfall and the Spen Dyke surface water outfall terminate seaward, at a depth of about five feet below the lowest level of low water of a high spring tide.

During the re-construction of the pen-stock chamber necessitated by the widening of the Promenade, storm overflow pipes were provided to relieve the sewage chambers during heavy rains with an incoming tide, and also a pumping chamber, if required, for use when the sewerage system is full at high tide.

(v) A smaller system takes the sewage from a portion of Claremont Park, and from an estate in Claremont Ward, which contains Cheltenham, Chesterfield, Clifford, Carshalton, and Handsworth Roads, etc., and also from a portion of the Gynn Estate, outside the Borough in the district of Bispham. This sewage flows by gravitation to an outfall at the Gynn, which extends seawards to a distance of 440 yards, sewage discharging at all states of the tide.

SEWER VENTILATION.

There is no complete system of Sewer Ventilation in the Borough, but I am informed by the Borough Surveyor that a commencement has been made with a system of ventilating the sewers by means of tall columns 30 to 40 feet in height, placed at intervals of about 200 yards, and in such positions as not to be a nuisance or injurious to the inhabitants of adjacent houses. Practically all the surface ventilators have been closed.

COLLECTION OF EXCRETA AND HOUSEHOLD REFUSE.

Blackpool is almost entirely a water carriage town. There are no cesspools or pail closets or privies in any of the inhabited parts, but on the outskirts there are a few of these. On the extension of the sewerage system they are being gradually abolished. The cesspools and privies are emptied and cleaned at least once a week in all parts of the Borough where they exist, while those in connection with the Fair Ground are emptied daily during the season.

With regard to household refuse, galvanised iron bins with tight-fitting covers are the most satisfactory of all forms of receptacles, and these are the forms which are being encouraged by my department. I am informed by the Cleansing Superintendent that during the season a daily collection was carried out at the Hotels, Hydros, Restaurants, and the larger Boarding Houses, whilst from the ordinary Company-houses, the refuse is removed from two to three times a week. With a slight modification requisite for meeting the reduced demand in connection with company-houses, this system is maintained during the winter months. The refuse collected is dealt with at the Destructor, and during the year 18,856 tons were destroyed.

WATER SUPPLY.

This is under the jurisdiction of the Fylde Water Board, a body composed of representatives from Blackpool, Lytham, St. Annes, and Fleetwood. The water is now laid on to every inhabited part of the Borough, and is an upland surface water derived from the Bleasdale and Grizedale Fells. The gathering ground is a good one, but the water derived from it is soft and of a peaty nature, and occasionally contains a certain amount of sediment, detracting from its appearance. This is particularly likely to occur in streets where the branch pipes supply come to a dead end, and sometimes complaints are received (from occupiers of houses in such streets) of the sediment in the water. The trouble could probably be entirely obviated by more frequent flushing of such branch supply pipes.

As is well known, soft upland surface water of this nature, especially if containing peaty matter, is liable to act on lead pipes and thus cause contamination of the water by lead, and this is apt to occur to a slight extent with the Fylde water. There is absolutely no danger to health likely to arise from this cause, provided occupiers of houses would take the precaution of making sure that the first water drawn off in the morning is not used for drinking or culinary purposes. It is only the water which has been standing all night in contact with the lead house service pipes which is likely to be contaminated.

During 1903, the Fylde Water Board commenced to make an immense new reservoir on their property, near the gathering grounds, which will largely increase the reserve stock of water available during any prolonged drought, and which should render the Fylde District secure from any chance of water famine for many years to come. This reservoir is estimated to cost £137,727, and to contain when completed 332 million gallons.

REPORT.

PART I.—VITAL STATISTICS.

POPULATION.

Much confusion has been caused in the preparation of this portion of the report owing to the fact that the preliminary census returns reveal a population of only 58,376 for the 1st April, 1911, while my estimate for the middle of 1910 was 63,216. I have therefore been compelled to re-write this portion of the report, altering the vital statistics, and this has caused much delay in the issue of the report.

The difficulty of estimating the population of Blackpool has been commented upon in most of the previous health reports, and this difficulty does not abate as the years go by. As an illustration I am giving the following anomalous state of affairs. In April, 1901, the number of empty houses in Blackpool was 834, according to the Registrar General's figures, while in September of the same year there were only 193 empty houses according to the Borough Treasurer's actual survey. It is highly probable that an equally anomalous state of affairs exists this year, and therefore an extreme difficulty presents itself of estimating the average population for the whole year. While the actual population on the 1st of April, 1911, was only 58,376 it must be evident to all, who have any knowledge of Blackpool's constitution, that this cannot be anything like the average resident population for the town. At the census of 1901 the number of persons per house was 4.766, and on this basis the population has been estimated, but this is probably too high now, and for the 1910 figure I have taken the average number of 4.5 persons per house. This gives an estimated population for the middle of 1910 of 60,113, and on this basis I have prepared the vital statistics for the year.

I am indebted to the Borough Treasurer for supplying me with information as to the number of inhabited and uninhabited houses in each of the Wards during the Autumn enumeration, lasting from the 15th to the 22nd of November, 1910. The figures are as follows :—

WARD.	NUMBER OF HOUSES.		
	Empty	Inhabited	Total
Claremont	27	2,386	2,413
Talbot	23	2,737	2,760
Bank Hey	8	377	385
Brunswick	47	2,106	2,153
Foxhall......................	50	3,953	4,003
Waterloo	52	1,802	1,854
Totals	207	13,361	13,568

It will be of interest to compare the total number of houses for the year with the corresponding numbers for previous years :—

NUMBER OF HOUSES.

	Empty	Inhabited	Total
1910	207	13,361	13,568
1909	200	12,994	13,194
1908	171	12,607	12,778
1907	153	12,334	12,487
1906	191	12,053	12,244
1905	188	11,789	11,977
1904	272	11,494	11,766
1903	309	11,181	11,490

While the number of empty houses was only 7 more in 1910 than in 1909, the number of inhabited houses was increased by 367 during the same period. I think that these figures, and similar comparisons for previous years, will point to the fact that Blackpool continues to flourish and attract more people to its boundaries. The ward populations, calculated on a reduced factor or ratio of persons per house, are as follows :—

Claremont	10,856
Talbot	12,645
Bank Hey	1,696
Brunswick	9,561
Foxhall	17,354
Waterloo..................	8,001
Total........ ...	60,113

Births.

During the year 1,006 births were registered, including 18 in the Kirkham Workhouse. These, divided into males and females for the four quarters of the year, are as follow :—

	1st Quarter.	2nd Quarter.	3rd Quarter.	4th Quarter.	Total.
Males	127	129	138	118	512
Females :.......	123	129	130	112	494
Total............	250	258	268	230	1,006

The birth-rate for the year on the gross population was 16.74 per 1,000. This is only 43 per cent. of the birth-rate for 1878, and the table on page 21, and the chart on page 20, will reveal vividly the steady and almost continuous decline which is taking place in the rate.

This rate compares with the other divisions of the country as follows :—

England and Wales...	...24.8	per 1,000
77 Great Towns ...	.. 24.9	,,
136 Smaller Towns...	...23.7	,,
Rural England and Wales	25.1	,,
Blackpool...	...16.7	,,

The constituent composition, however, of the Blackpool population should be borne in mind, for the percentage of married women of child bearing age is undoubtedly considerably lower than that of rural districts or manufacturing towns. I trust that in my report for next year, when the details of the 1911 Census are to hand, I shall be able to uphold this statement by actual figures.

The birth-rate, however, is falling, and when I consider this matter from a purely sociological aspect, I cannot help being impressed with the necessity for studying and persevering in all methods of improving the chances of viability of our infants. I hear on many hands that the tendency of present day legislation is to sap the independence and responsibility of the individual, but as a sanitarian, I consider that this criticism of the situation is weak. When I read in past records of high death-rates, pestilences, and insanitary conditions, and contrast them with the state of affairs as exist to-day, I am more than convinced that the existence and efforts of sanitary authorities are more than justified.

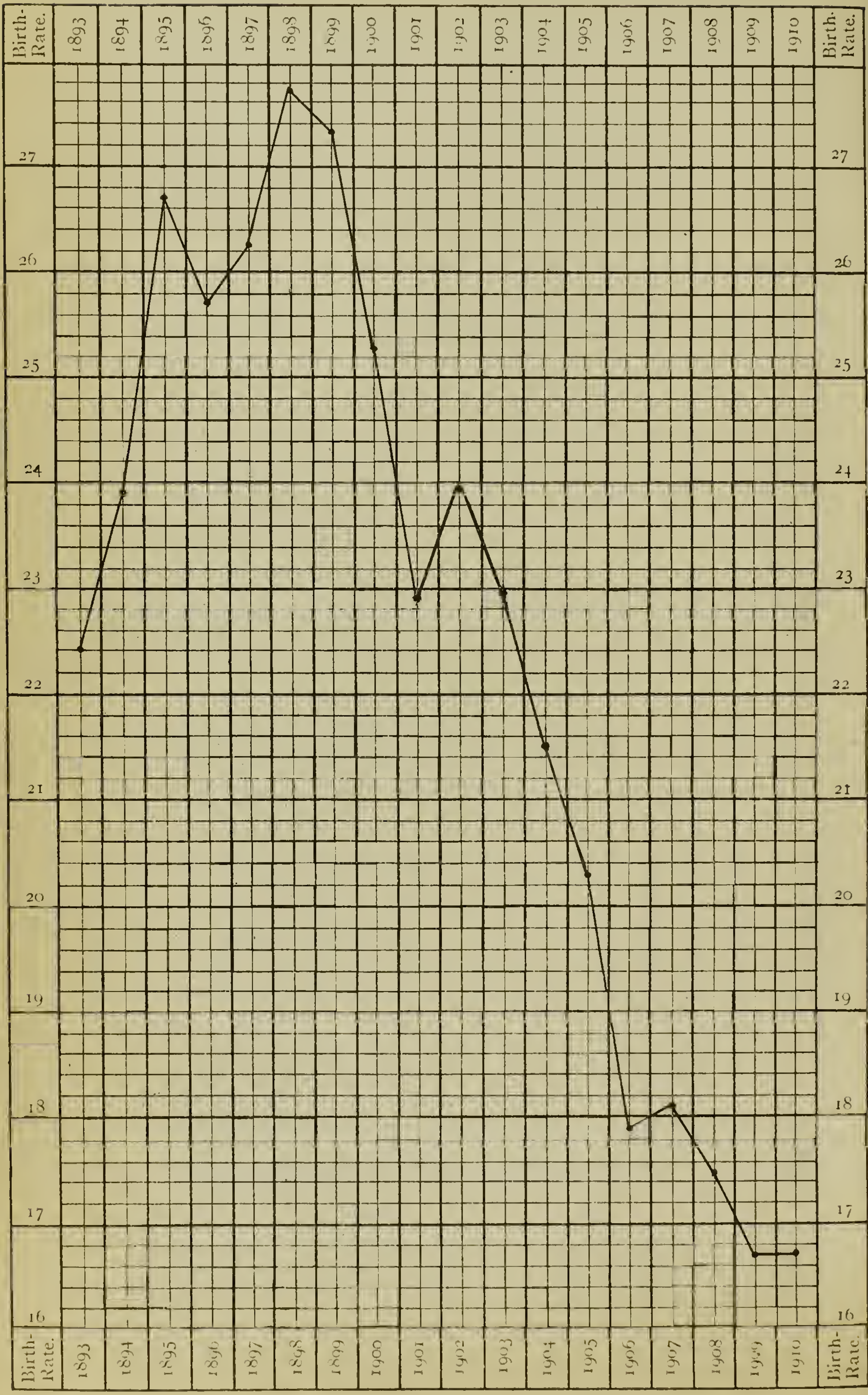
I believe that it is economically sound to prolong the working life of the individual, to reduce the time spent in repairs of the body, to render the conditions under which the working classes carry out their arduous avocations healthy and pleasant, and in my opinion the "present day legislation" and the work of sanitary authorities have that effect.

These are the only known means of counteracting the results of a decreasing birth-rate.

The earliest recorded birth-rate which I have of Blackpool is for the year 1878, when, with a population of 13,000,

BIRTH-RATES FOR THE YEARS

1893—1910.



there was a rate of 38.8. I have prepared a table based on the same lines as a table in the Annual Report of the Registrar-General for the year 1907. The rate for 1878 is taken as a standard and is called 100, and the subsequent years are given as percentages compared with this year, 1878 :—

Period	Birth rate Blackpool	Birth rate Blackpool compared with rate for 1878 taken as 100	Birth rate England and Wales.	Birth rate England and Wales compared with rate for 1878, taken as 100.
1878	38.8	100	35.6	100
1879	36.6	94.3	34.7	97.5
1880	34.0	87.6	34.2	96.1
1881	30.6	78.9	33.9	95.2
1882	30.0	77.3	33.8	94.9
1883	30.0	77.3	33.5	94.1
1884	29.8	76.8	33.6	94.3
1885	27.4	70.6	32.9	92.4
1886	25.9	66.8	32.8	92.1
1887	25.3	65.2	31.9	89.6
1888	24.5	63.1	31.2	87.6
1889	26.5	68.3	31.1	87.4
1890	23.7	61.1	30.2	84.8
1891	22.3	57.5	31.4	88.2
1892	24.0	61.9	30.4	85.4
1893	22.4	57.7	30.7	86.2
1894	23.9	61.6	29.6	83.1
1895	26.7	68.8	30.3	85.1
1896	25.7	66.2	29.6	83.1
1897	26.25	67.7	29.6	83.1
1898	27.74	71.5	29.3	82.3
1899	27.34	70.5	29.1	81.7
1900	25.27	65.1	28.7	80.6
1901	22.90	59.0	28.5	80.1
1902	23.96	61.8	28.5	80.1
1903	22.97	59.2	28.4	79.8
1904	21.53	55.5	27.9	78.4
1905	20.30	52.3	27.2	76.4
1906	17.91	46.2	27.1	76.1
1907	18.09	46.6	26.3	73.9
1908	17.54	45.2	26.2	73.6
1909	16.70	43.0	25.6	71.9
1910	16.74	43.1	24.8	69.7

ILLEGITIMATE BIRTH RATE.

There were 68 illegitimate children born during the year, including 18 at the Kirkham Workhouse. This figure gives the following rates :—

(1) 1.13 per 1,000 of the inhabitants.
(2) 4.61 per 1,000 females of conceptive age.*
(3) 6.76 per cent. of the total births.

These figures for the past few years have been as follows :—

	1910	1909	1908	1907	1906	1905	1904	1903	1902	1901
	—	—	—	—	—	—	—	—	—	—
(1)	1.13	1.35	1.14	1.08	1.14	1.24	1.34	1.14	1·11	1.50
(2)	4.61	5.50	4.64	4.39	4.64	5.05	5.47	5.38	4.53	7.33
(3)	6.76	8.09	6.49	5.96	6.35	6.10	6.24	5.75	4.64	6.54

The second figure, *i.e.*, the proportion of illegitimate births to women at conceptive ages is the one which represents best the progress of illegitimacy in the country.

*Calculated on there being 14,756 females at child-bearing age—20 to 45.

DEATHS.

The difficulty which has prevailed in previous years of computing the death rate, will, after this year be largely abolished. The instructions of the Local Government Board have hitherto been to deduct from the gross number of deaths, only those which have occurred in public institutions, of persons non-resident in the district, but from the

1st January, 1911, the deaths of all persons, non-resident, may be deducted, whether they occur in public institutions or in private houses.

In endeavouring to obtain a correct death rate, I have calculated an average population for 1910 of 60,113, and have deducted deaths of non-residents, and applied the "factor for correction" (see page 22 of my 1909 Report) and this gives a figure of 12.47 per thousand.

I have frequently given expression to the old adage that the prevalence of death is the standard of health, and therefore it is gratifying to find that with an increasing population, and therefore with an increasing density, the death rate still shows a downward tendency. The corrected death rate is below that for the two immediately preceding years, though slightly above that for the three years which preceded them.

The comparison of Blackpool with other portions of the country is given in the following table :—

England and Wales	13.4
77 Great Towns	14.3
136 Smaller Towns	12.9
Rural England and Wales	12.8
Blackpool	12.47

I think in this comparison Blackpool occupies a satisfactory position.

There were 38 deaths of residents in Kirkham Workhouse, and of 12 residents who died away from Blackpool, whose deaths were notified to me by the Medical Officers of Health of the districts in which these deaths occurred.

The deaths of the 168 non-residents mentioned above include cases which died in the Victoria Hospital. These deaths have been notified to the Medical Officers of Health of the districts from which they came.

The deaths divided into Males and Females and Residents and Non-Residents for the four quarters of the year are as follows :—

		1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Totals	
Males ..	Residents	88	72	66	93	319	
	Non-Residents...	8	10	21	4	43	362
Females	Residents	112	79	83	93	367	
	Non-Residents...	4	7	8	6	25	392
	Totals...........	212	168	178	196	754	754

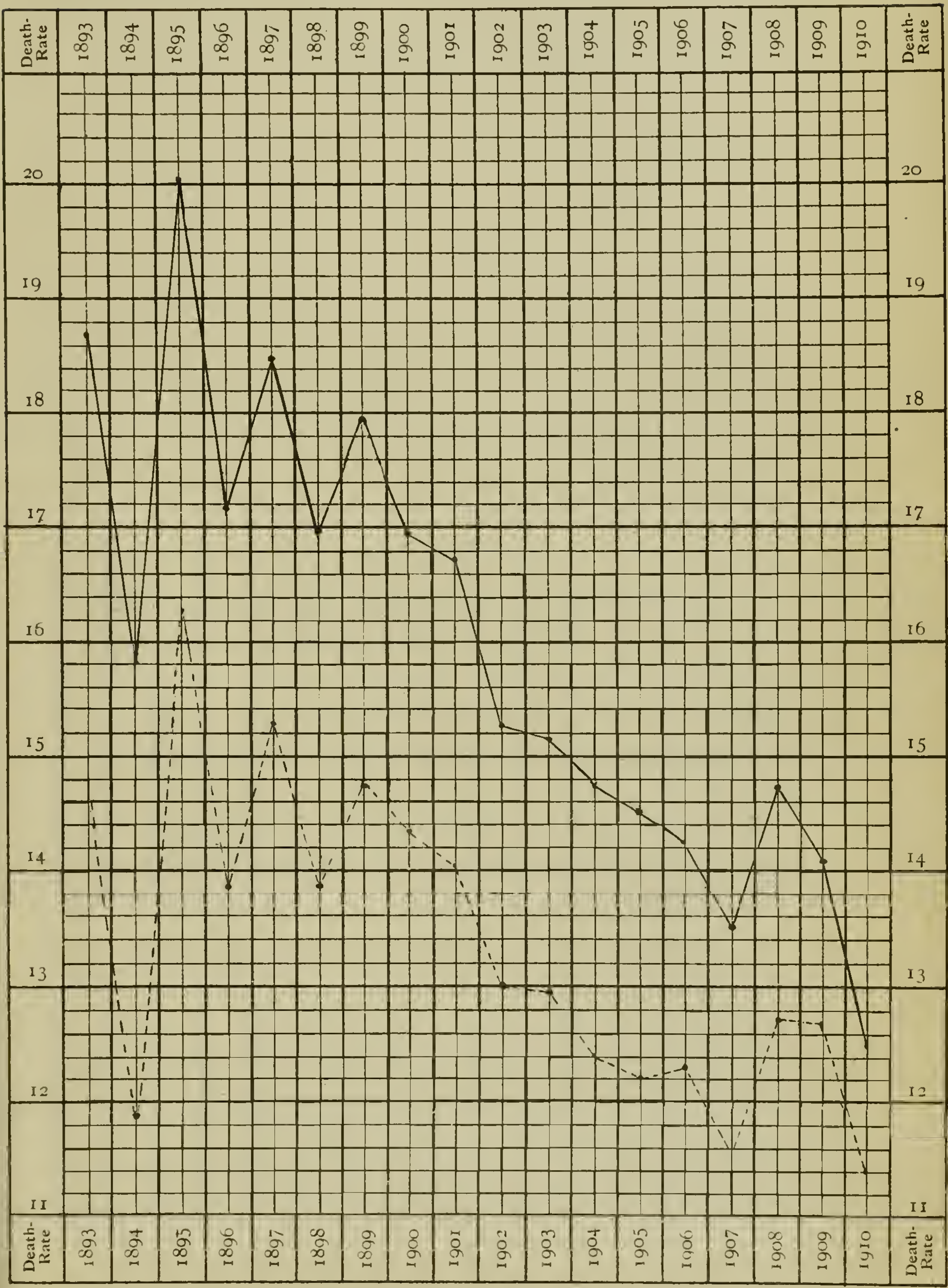
The Ward statistics with regard to deaths and death-rates are as follow :—(the rates for the previous year being included for the sake of comparison).

WARDS.	Estimated Population	Number of Deaths (Residents)	Death Rate 1910	Death Rate 1909
Claremont	10,856	104	9.58	12.39
Talbot	12,645	184	14.55	15.87
Bank Hey	1,696	17	10.02	11.17
Brunswick	9,561	97	10.15	12.69
Foxhall	17,354	193	11.12	11.70
Waterloo	8,001	91	11.37	10.38

DEATH-RATES, 1893–1910.

Gross Death-Rate ———— Nett Death-Rate - - - - - - -

The number of deaths registered was 754, and of these 68 were non-residents.



The number of deaths at various ages and the percentage of the total deaths are as follows :—

Age period.	Number of deaths.	Percentage of total deaths.
Under 12 months	110	14.59
1 and under 5 years ...	48	6.36
5 and under 65 years..	369	48.94
65 years and over	227	30.11

More details of this character will be found in Table IV. The proportions of males and females living at different ages are presumed to be the same as those recorded at the 1901 census, but the period of time which has elapsed since that census, and the variations in the birth and death rates, render the estimate somewhat unreliable.

TABLE IV.

POPULATION AND DEATH-RATES (RESIDENTS), AT VARIOUS AGES.

	BLACKPOOL, 1910.									Engl'nd and Wales. 1891-01.	Engl'nd and Wales 1891-01.
	Per cent. of population living at various ages (1901 census)		Number estimated living in 1910.		Total Deaths.		Death Rate.		Death Rates of persons at different ages.	Death Rates of males living at different ages.	Death Rates of females living at different ages.
	Males	Females	Males	Females	Males	F'mls	Males	Females			
Under 5 years ...	5.01	5.32	3,013	3,199	81	69	26.88	21.57	24.15	62.11	52.33
5-15 ,,	8.22	9.04	4,941	5,437	7	9	1.42	1.66	1.54	3.32	3.42
15-25 ,,	8.01	10.96	4,813	6,585	8	9	1.66	1.37	1.49	4.35	3.95
25-35 ,,	8.20	10.60	4,931	6,372	19	22	3.85	3.45	3.63	6.60	5.93
35-45 ,,	6.14	7.80	3,691	4,691	28	28	7.59	5.97	6.68	11.24	9.38
45-55 ,,	4.37	5.80	2,626	3,488	41	42	15.61	12.04	13.58	18.53	14.44
55-65 ,,	2.88	3.99	1,733	2,396	46	62	26.54	25.88	26.16	34.24	27.79
65-75 ,,	1.08	1.74	648	1,044	52	81	80.25	77.59	78.61	69.06	59.35
75-85 ,,	0.31	0.47	185	284	33	37	178.38	130.28	149.25	143.32	128.11
85 and upwards.	0.02	0.04	11	25	4	8	363.64	320.00	333.33	281.82	256.14

Of the 754 gross deaths in 1910, the causes of 683 or 90.58 per cent. were certified by medical practitioners. Inquests were held respecting 41, or 5.44 per cent., whilst the remaining 30, or 3.98 per cent., were uncertified. These figures compare with previous years as follows :—

	Certified by Medical Practitioner.		Inquest Cases.		Uncertified Cases.	
	Total.	Per cent. of total.	Total.	Per cent. of total.	Total.	Per cent. of total.
1901......	766	90.44	45	5.31	36	4.25
1902......	735	92.34	39	4.90	22	2.76
1903......	723	89.92	38	4.73	43	5.35
1904......	718	89.53	47	5.86	37	4.61
1905......	741	91.59	37	4.57	31	3.83
1906......	738	90.89	53	6.53	21	2.59
1907......	729	92.51	37	4.70	22	2.79
1908......	815	92.51	45	5.11	21	2.38
1909......	796	92.13	39	4.51	29	3.36
1910......	683	90.58	41	5.44	30	3.98

CAUSES OF DEATH.

According to the groups of diseases the following deaths occurred :—

	No. of deaths.	Percentage of Total Deaths.
Specific Febrile or Zymotic Diseases	128	16·98
Parasitic	—	—
Dietetic..................................	3	0·40
Constitutional.........................	76	10·08
Developmental	69	9·15
Local....................................	407	53·98
Deaths from Violence...............	23	3·05
Other causes	48	6·36

These deaths, divided into age groups, into residents and visitors, and into males and females, are seen on the table on pages 48 to 58.

ALCOHOLISM was certified as causing the deaths of 3 persons, all of whom were females between the ages of 25 and 45. In addition Cirrhosis of the Liver caused 9 deaths, and it is probable that at least some of these were also due to alcoholism. It would be interesting and instructive to know what part alcoholic indulgence has had in preparing the system for such conditions as Phthisis and other constitutional diseases, and I am sure that if it were generally known to what an extent the human body is deprived of its resisting powers, such indulgence would be diminishing at a much greater rate than it is at present.

DIABETES caused 13 deaths of persons at the following ages :

Age.	Sex.	Number.
25 to 35 years ...	F. ...	1
45 to 55 ,, ...	M. ...	1
55 to 65 ,, ...	M. ...	2
Do. ,, ...	F. ...	3
65 to 75 ,, ...	M. ...	3
Do. ,, ...	F. ...	2
75 years and over ...	M. ...	1

In my report for 1908 I recorded the unusual occurrence of a death, from Diabetes, of a child under twelve months of age.

The following are the particulars obtained as to the duration of the disease :

1 year	to	1½	years	3 cases.
1½	,,	2	,,	1 case.
2	,,	2½	,,	5 cases.
3	,,	3½	,,	1 case.
4	,,	4½	,,	1 case.
5	,,	5½	,,	1 case.
12	,,			1 case.

SYPHILIS was the direct cause of the death of a female child under 12 months of age. There is a great temptation in dealing with this subject to dwell at length upon the fact of the sins of the fathers being visited upon the children, for in this case the disease was inherited from the parents.

CANCER was the cause of 50 deaths, 17 of which were males, and 33 females, and of these, 1 male and 3 females were visitors. I here reproduce a Table which appeared on page 52 of the 1907 Health Report, and with the 1908, 1909 and 1910 figures added :—

CANCER MORTALITY IN BLACKPOOL.

YEAR.	Total Deaths	Deaths of Visitors	Gross Death Rate	Nett Death Rate	England and Wales
1895	19	3	0.577	0.486	0.753
1896	20	3	0.546	0.464	0.762
1897	33	3	0.820	0.746	0.785
1898	29	7	0.638	0.484	0.799
1899	36	2	0.747	0.705	0.826
1900	49	2	0.976	0.937	0.829
1901	59	5	1.162	1.064	0.842
1902	51	4	0.977	0.901	0.844
1903	55	3	1.037	0 981	0.872
1904	51	10	0.938	0.755	0.877
1905	58	4	1.041	0.969	0.885
1906	59	5	1.033	0 946	0.917
1907	57	5	0.975	0.890	0.909
1908	60	9	1.004	0.854	0.923
1909	61	2	0.993	0.960	0.952
1910	50	4	0.832	0.765	—

The parts of the body affected with the disease were as follows :—

	Males.	Females	Total
Stomach	3	4	7
Liver	3	1	4
Breast	—	9	9
Bowels	1	7	8
Pancreas	—	2	2
Urinary Organs	1	1	2
Generative Organs	1	3	4
Abdomen	2	2	4
Rectum	3	1	4
Tongue	2	—	2
Spinal Cord	—	1	1
Other sites	1	2	3
Total	17	33	50

and the deaths occurred in the following age groups :—

25 to 35 years, 2 cases.
35 to 45 ,, 3 cases.
45 to 55 ,, 8 cases.
55 to 65 ,, 19 cases.
65 to 75 ,, 14 cases.
75 years and over, 4 cases.

Enquiries have been made into the family history of the cases, and the following results were obtained :—

5 cases—Brother or sister died of cancer.
1 case—Niece ,, ,,
2 cases—Grandmother ,, ,,
1 case—Cousin ,, ,,
1 case—Aunt ,, ,,
2 cases—No information
38 cases—No family history of cancer.

Offers of disinfection have been made in all the cases, but in 10 only was disinfection by the Health Authority accepted. In the other cases it was done by the occupiers.

APOPLEXY and its allied conditions claim a large number of victims year by year, 69 deaths being attributed to this complaint during 1910. The record for the past ten years has been as follows :—

Year.	Males	Females	Total
1901	20	25	45
1902	21	21	42
1903	28	13	41
1904	22	25	47
1905	15	34	49
1906	21	33	54
1907	30	29	59
1908	31	45	76
1909	28	20	48
1910	28	41	69

The age groups of the 1910 cases were as follows :—

25 to 35 years...	2 cases.
35 to 45 ,, ...	1 case.
45 to 55 ,, ...	6 cases.
55 to 65 ,, ...	22 cases.
65 to 75 ,, ...	22 cases.
75 years and over	16 cases.

It will be observed that the usual age incidence of Apoplexy is borne out by the 1910 results, viz., its more frequent occurrence between the ages of 55 and 75.

CONVULSIONS was vaguely attributed as the cause of 9 deaths, 6 of which were males and 3 females. All were under the age of 5 years. It would be more satisfactory if this term were only applied when it is not possible to indicate the cause of the convulsions, as they are only symptoms, not a disease in themselves.

OLD AGE was attributed as the cause of death of 49 persons, 31 of whom were over 75 years of age.

DISEASES OF THE HEART claim a large number of victims, 82 deaths being attributed to them. Of these 82, 52 were valvular disease, and the remaining 30 were classed under the general designation of "other diseases."

DISEASES OF THE RESPIRATORY ORGANS (apart from Phthisis) accounted for 115 deaths.

The months in which these deaths occurred were as follows :—

January	9	July	4
February	15	August	2
March	10	September......	7
April............	18	October	8
May	11	November......	13
June	7	December	11

The record of these diseases for the past few years has been as follows :—

Year.	Cases.	Year.	Cases.
1900	152	1905................	101
1901	133	1906................	106
1902	127	1907................	134
1903	114	1908................	115
1904	114	1909................	160
		1910................	115

PHTHISIS.

Two systems of notification have been in force during the year, viz., a compulsory notification of all Poor Law cases and a voluntary notification of cases attended by private practitioners. Nine cases have been notified under the former and 28 under the latter system. In my 1909 Report I dwelt at considerable length on the subject of Phthisis, and the administrative control of this disease is still occupying a large portion of the energies of sanitarians. I am pleased to record that just at the time of writing this Report the Blackpool Corporation has appointed delegates to a Congress on the subject in London. It is to be hoped that the provisions of the Insurance Bill now before Parliament will have a wide reaching effect in dealing with Consumption, for there can be no doubt that one of the first essentials in controlling its spread is some form of isolation, especially for the early cases where precautions which could be adopted can be learned.

I have visited periodically all the cases except where the medical attendant has expressed a desire that I should not do so, and I have advised on such matters as sleeping arrangements, disposal of sputum, &c. In many cases the advice has been acted upon, but unfortunately there are many others where it has been completely ignored. I do not propose giving details of the cases as the information given to me by the medical practitioners and patients and their families has been of a confidential nature, but I am able to state that all the cases which have come to my knowledge have been advised by me or by their own doctor as to what procedure to adopt in order to enhance their prospects of cure and to reduce their infectivity to a minimum.

It is with much regret that I state that notification has not been as widely resorted to by the medical profession as I trusted it would be, for while only 37 cases have been notified, 43 deaths have occurred.

Early in the present year compulsory notification has been extended to such cases as come under treatment at the Hospitals, and I trust the public mind will soon be ready for general compulsory notification. I consider the supervision of cases of Consumption to be a most important matter in a Health Resort, and the views put forth in my last Report I hold as strongly to-day, viz., that the Sanitary Authority should have compulsory power to disinfect thoroughly all premises which have been occupied by consumptive persons, and that it should be a penal offence to allow such premises to be occupied by others without previous disinfection.

With regard to provision of Hospital accommodation, this matter has been considered fully by the Health Committee during the year, and a visit has been paid to the Elswick Hospital with a view of utilising some portion of it for this purpose. In view of the threatened outbreak of Smallpox in Lancashire during last Autumn it was decided not to proceed further with this idea in the meantime.

Some clinical observers are now speaking highly of the use of Tuberculin for cases of Consumption and advocating Municipal Tuberculin Dispensaries in preference to Sanatoria. I am keeping myself familiar with these various aspects of the question and as soon as there is enough evidence to justify a decided opinion I shall not be behind in reporting to the Committee on the subject and making recommendations.

A study of the table on page 36 giving the death rate from Phthisis during a sequence of years will reveal the fact that the rate is still falling.

Phthisis accounted for 43 deaths during the year, viz., 38 residents and 5 visitors. The ages at death and the months in which they occurred, were as follows :—

	Males.	Females.
1 to 5 years	—	—
5 to 15 ,, ...	—	1
15 to 25 ,, ...	3	5
25 to 35 ,, ...	8	7
35 to 45 ,, ...	6	3
45 to 55 ,, ...	5	2
55 to 65 ,, ...	2	1
65 to 75 ,, ...	—	—
75 years and over	—	—
	24	19

January	1	July	—
February	5	August	7
March	8	September......	3
April............	3	October	2
May	4	November	3
June	2	December	5

Inquiries into the family history of the fatal cases of Phthisis revealed the following :

4 cases—One parent died of Phthisis
7 cases—A brother or sister ,,
1 case—Brother-in-Law ,,
4 cases—Aunt or uncle ,,
1 case—Cousin ,,
1 case—Father and Sister ,,
1 case—A grandparent ,,
24 cases—No family history of Phthisis.

The duration of illnesses was as follows :—

1	to	6	months	3 cases.
6	to	12	months	9 ,,
1	to	1½	years	7 ,,
1½	to	2	,, ...	2 ,,
2	to	2½	,, ...	8 ,,
2½	to	3	,, ...	1 case.
3	to	3½	,, ...	3 cases.
4	to	4½	,, ...	3 ,,
5	to	5½	,, ...	1 case.
5½	to	6	,, ...	1 ,,
6	to	6½	,, ...	2 cases.
7	to	7½	,, ...	2 ,,
		10	,, ...	1 case.
Indefinite				1 ,,

Disinfection of the premises by means of a formalin spray has been offered in each case. In 33 cases disinfection was carried out by the Health Authority, in five cases by the occupier, and of the remaining four cases I have no information.

Thirty-nine specimens of sputum have been submitted for bacteriological examination. Thirty-one of these gave a negative and eight a positive result.

The number of deaths and death-rates from Phthisis in the past ten years have been as follows :—

Year	Number of Deaths	Death-rate	Death-rate corrected for Non-Residents
1901	49	0.97	0.73
1902	56	1.07	0.86
1903	53	1.00	0.74
1904	57	1.05	0.86
1905	63	1.13	0.92
1906	52	0.9	0.68
1907	61	1.04	0.86
1908	55	0.92	0.86
1909	51	0.83	0.73
1910	43	0.72	0.63

THE GROUP OF SPECIFIC, FEBRILE, OR ZYMOTIC DISEASES was the cause of 128 deaths. The diseases in this group, which are notifiable, will be dealt with in detail under Part II.

WHOOPING COUGH caused 10 deaths, all under the age of five years (and of these, 7, or 70 per cent., were infants under 12 months of age). The Wards affected were : Claremont 2, Talbot 1, Brunswick 2, Foxhall 3, Waterloo 2.

The months in which the deaths occurred were as follows :

January	1	September	1
February	2	October	1
March	2	December	2
July	1		

The numbers of deaths in previous years have been as follows :—

1909	1908	1907	1906	1905	1904	1903	1902	1901	1900
7	12	27	6	3	13	1	3	12	19

INFLUENZA caused 4 deaths, as compared with 20, 13, 11, 15, and 11 in the five years immediately preceding. The age incidence, and the months in which the fatal cases occurred, were as follows :—

Age 15 to 25—1	February	2
Age 55 to 65—1	May	1
Age 65 to 75—1	August	1
Age 75 and over—1		

DIARRHŒA caused 24 deaths at the following age periods :—

0 to 1—17. 1 to 5—3. 35 to 45—2. 45 to 55—1.
55 to 65—1.

It will thus be seen that the great majority of these deaths occurred during the first year of life. They have all been inquired into by the Health Visitor, and the conditions as to housing and feeding found will be given in detail under the next paragraph. The months in which the deaths occurred were as follows :—

	Under 1.	Over 1.		Under 1.	Over 1.
May	1	1	September	3	3
July	1	—	October	7	1
August	5	2			

The number of deaths from Diarrhœa for each of the past few years is as follows :—

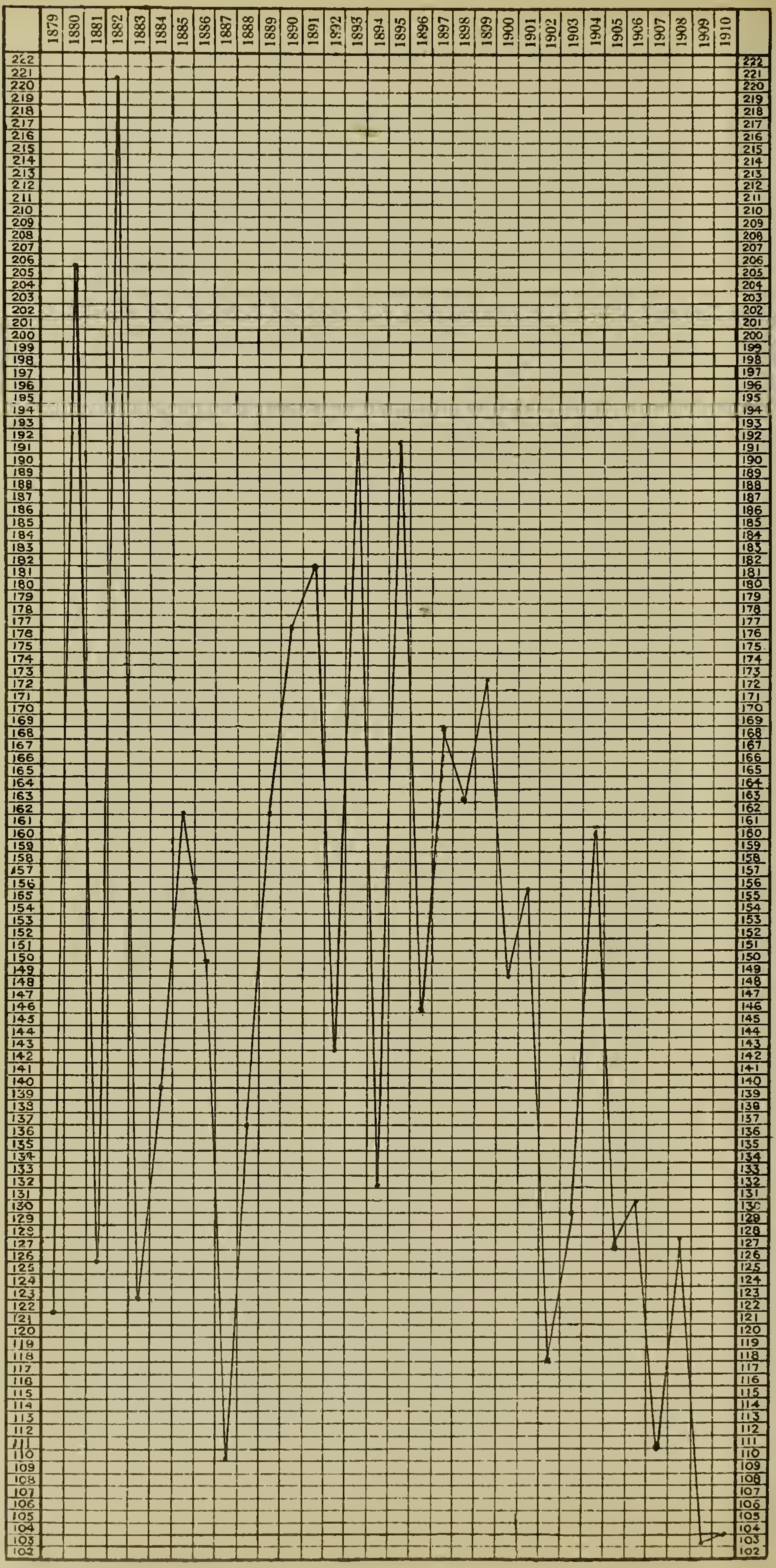
1895	69	1899	81	1903	25	1907	9
1896	33	1900	55	1904	38	1908	28
1897	52	1901	41	1905	30	1909	13
1898	101	1902	10	1906	35	1910	24

INFANT MORTALITY.

The Infant Mortality, or rate of deaths of Infants under one year per 1,000 births for 1910 was 109, or 104 if corrected for residents only. It is very satisfactory to find that the corrected rate, with the exception of that for the previous year is the lowest recorded for Blackpool. The chart on this page will reveal in a vivid form the enormous reduction in the infant mortality which has taken place during the past few years, and I attribute this reduction to the direct attack made by the Health Committee on the erroneous ideas as to infant rearing which have existed in the past.

During the year 110 children died in the town before reaching the age of 12 months. 57 of these were males and 53 were females. Of these 110 children, however,

CHART SHOWING INFANTILE MORTALITY from 1879 to 1910.



4 males and 1 female were visitors to the town, and their births were not included in our total of 1,006 births for the year. The following Table gives the infant death-rate, per 1,000 deaths, for the past 31 years, and the chart represents in a more diagrammatic manner the fluctuations from year to year :—

INFANT MORTALITY, 1879-1910.

Rate per 1,000 Births.

Year.	Blackpool		England and Wales.
	Gross.	Nett residents only	
1879	122	122	135
1880	206	206	153
1881	126	126	130
1882	221	221	141
1883	140	123	137
1884	146	140	147
1885	174	162	138
1886	152	150	149
1887	116	110	145
1888	137	137	136
1889	169	162	144
1890	182	177	151
1891	193	182	149
1892	160	143	148
1893	210	193	159
1894	160	132	137
1895	206	192	161
1896	159	146	148
1897	191	169	156
1898	178	163	160
1899	184	173	163
1900	161	149	154
1901	168	156	151
1902	123	118	133
1903	135	130	132
1904	170	161	145
1905	135	127	128
1906	140	131	133
1907	113	111	118
1908	137	128	121
1909	111	103	109
Mean of 31 years	159	150	142
1910	109	104	106

The figure for 1910 compares with other parts of the country as follows :—

England and Wales	106
77 Great Towns	115
136 Smaller Towns	104
Rural England and Wales	95
Blackpool	104

It is gratifying to find that Blackpool is not higher than the average for the towns in which it is classed, i.e., the 136 smaller towns, especially when it is remembered that it is one of the largest in this group.

We must however not be satisfied until the rate reaches and remains at 100.

The rates for the four quarters of the year were as follows :—

1st Quarter	108.00
2nd Quarter	65.89
3rd Quarter	97.01
4th Quarter	173.91

The following Tables (V. and VI.) show the numbers of Infantile deaths and the Infantile Mortality for the various Wards for a succession of years ;—

TABLE V.

Number of Children (residents only) under one year old who died in the respective Wards.

WARD.	1891-5	1896-1900	1901-1905	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910
Claremont	78	98	125	23	22	26	26	28	20	17	15	16	13
Talbot ...	179	271	243	51	47	53	56	36	39	21	41	30	35
Bank Hey	15	23	16	5	1	3	6	1	2	8	—	2	1
Brunswick	91	148	83	21	12	11	22	17	22	18	18	20	8
Foxhall ...	159	289	268	57	53	50	54	54	40	38	40	27	39
Waterloo .	60	107	84	24	13	15	24	8	11	15	20	11	9
Total for Borough	582	936	819	181	148	158	188	144	134	117	134	106	105

TABLE VI.

Infantile Mortality; Deaths of Children (residents only) under one year old per 1,000 births:—

WARD.	1891-5	1896-1900	1901-1905	1906	1907	1908	1909	1910
Claremont....	172·5	117·2	142·1	139·86	103·03	104·90	100·00	88·44
Talbot	162·8	162·6	151·8	150·00	81·71	155·30	112·36	131·09
Bank Hey......	112·0	157·5	133·6	111·11	347·83	—	125·00	66·66
Brunswick ...	168·2	188·3	119·4	165·41	139·53	120·00	134·23	64·51
Foxhall.........	187·2	172·7	143·5	119·76	112·76	118·69	85·17	124·60
Waterloo	163·9	151·3	114·1	81·48	102·74	144·93	94·02	64·28
Total for Borough...	168·3	160·2	138·4	130·99	110·69	127·86	103·31	104·37

Table VII. in the Appendix shows the causes of deaths, and the ages at death. It will be seen that 42 deaths, or 38 per cent., occurred during the first month of life ; 10, or 9 per cent. during the second ; and 12, or 11 per cent, during the third. Thus 64, or 58 per cent. of all deaths of infants under one year of age, occurred during the first three months. Fifteen infants died on the first day of life. Nine of these deaths were caused by prematurity, one by congenital defects, two by debility, one by convulsions, and one through want of attention at birth.

The groups of diseases caused the following deaths: —

Common Infectious Diseases...	7
Diarrhœal Diseases (including 14 Diarrhœa)	20
Wasting Diseases (including 16 from prematurity and 20 from Debility ...	40
Tuberculous Diseases	6
Other causes (including 14 from Bronchitis and Pneumonia, and 9 from Convulsions	37

Inquiries into the Infantile deaths have been made by the Health Visitor, and the conditions found with regard to feeding were as follows :—

DEATHS UNDER ONE.—TOTAL.

(Calendar Quarters).

CAUSES	YEAR.		QUARTERS.								FEEDING.			Mother employed away from home.	Illegitimate
	Under 3 months.	Total	First		Second		Third		Fourth		Not Fed.	Breast Fed.	Hand Fed partly or entirely.		
			Under 3 months	Total.	Under 3 months	Total.	Under 3 months	Total.	Under 3 months	Total.					
1.—Common Infectious Diseases (Measles, Diphtheria, and Whooping Cough)...	2	7	2	3	—	—	—	1	—	3	—	1	6	2	
2.—Diarrhœal Diseases :—Diarrhœa, Enteritis and Gastritis	10	20	—	—	1	1	3	9	6	10	—	—	20	5	4
3.—Wasting Diseases :— Premature Birth, Congenital Defects, &c.	19	20	7	7	5	5	2	2	5	6	9	—	11	3	4
Debility	13	20	3	6	2	2	3	4	5	8	3	5	12	3	5
4.—Tubercular Diseases	—	6	—	2	—	—	—	—	—	4	—	1	5		2
5.—Other Causes: Convulsions	7	9	1	2	2	2	2	3	2	2	2	1	6	—	1
Bronchitis	7	13	2	3	3	5	1	1	1	4	—	5	8	2	1
Pneumonia	—	1	—	1	—	—	—	—	—	—	—	1	—	—	—
Other causes.........	6	14	1	3	—	1	2	5	3	5	2	5	7	—	2
TOTALS	64	110	16	27	13	16	13	25	22	42	16	19	75	15	19

Sixteen infants died before they were fed, the majority of these being cases of premature birth. 64 out of the 110 deaths, or 58 per cent., occurred during the first three months of life, the remainder, or 42 per cent., occurring during the subsequent nine months. Efforts at reducing the infant mortality must be made at the earliest possible occasion after the birth, and it is in this respect that the Notification of Births Act is of special value. Only 19 of the cases were breast fed, and I feel I cannot do better than reproduce here my comments in the 1909 Report on the subject.

The accumulated evidence of a series of years points most unmistakeably to the fact that a breast-fed child has a better chance of living than a hand-fed one, and hence the value of the services of a Health Visitor to impress upon mothers the importance of persevering with the breast milk, even if in some cases it has to be supplemented with cow's milk, suitably prepared according to age of child. Perseverance in the most suitable methods of infant feeding not only reduces the Infantile Mortality, but it leads to healthier and sturdier children ; and when we consider the steadily declining birth-rate the urgency of administrative efforts to reduce Infantile Mortality becomes more and more apparent.

With regard to Infant Insurance the following results were obtained :—

Insured for 10s. or less	3	cases.
,, between 10s. and £1	2	,,
,, between £1 and £1 10s.	8	,,
,, between £2 and £3	11	,,
,, over £3	3	,,
,, but not in benefit	5	,
Not insured	70	,,
No information	8	,,

In 15 cases only were the mothers employed away from home, and as I have before stated, this is one of the reasons why we should not be satisfied until our Infant Mortality rate reaches and remains at 100.

The months in which the Infantile deaths occurred were :—

January	6	May	7	September	10
February	10	June	7	October	17
March	11	July	6	November	9
April	3	August	10	December	14

With regard to the Diarrhœa deaths the following mode of storage of food was found :—

Food stored in scullery—19 cases.

Food stored in pantry or larder—4 cases.

Food stored in wash-house—1 case.

DEATHS FROM VIOLENCE.—The number of deaths classified under this heading was 23 for the year 1910, including 7 visitors, as compared with 31 in 1909, 32 in 1908 and 27 in 1907. They are classified thus :—

	Accident	Suicide.	Murder.	Total.
Fractures and Contusions ...	7	—	—	7
Burns and Scalds	3	—	—	3
Poison........................	1	—	—	1
Drowning	3	1	—	4
Suffocation........................	2	—	—	2
Gunshot Wounds........... ...	—	2	—	2
Otherwise	—	1	—	1
Hanging........................	—	3	—	3
Totals........................	16	7	—	23

INQUESTS.

The number of inquests held during the year was 41. The rate of inquest deaths was 54 per 1,000 deaths, as compared with 73 per 1,000 deaths in England and Wales.

The following is an an analysis of the verdicts :

ACCIDENTAL.	
Burns and Scalds	3
Ammonia Poisoning	1
Drowning	2
Injuries	7
Septicaemia	2
Suffocation	1
SUICIDE.	
Coal Gas Poisoning	1
Drowning	1
Hanging	3
Gunshot Wounds	2
NATURAL AND OTHER CAUSES.	
Found drowned	1
Suffocation	1
Natural causes	5
Want of attention at birth	1
Premature birth	1
Bronchitis	1
Debility	3
Alcoholism	2
Diarrhœa	2
Enteritis	1

TABLE IX. (Part I).

Analysis of Causes of Deaths at several Groups of Ages from Different Causes for the Year 1910.

CAUSE OF DEATH.	Resident or Visitor	AGES AND SEXES. 0 to 1		1 to 5		Total under 5 years		5 to 15		15 to 25		25 to 35		35 to 45		45 to 55		55 to 65		65 to 75		75 and ov'r		TOTAL		WARDS. Claremont	Talbot	Bank Hey	Brunswick	Foxhall	Waterloo	TOTAL	Institut'ns
		M	*F*	*M*	*F*	*M*	*F*	*M*	*F*	*M*	*F*	*M*	*F*	*M*	*F*	*M*	*F*	*M*	*F*	*M*	*F*	*M*	*F*	*M*	*F*	1	2	3	4	5	6	7	8
I. SPECIFIC FEBRILE or ZYMOTIC DISEASES	R	16	12	11	9	27	21	1	4	4	7	8	12	8	5	7	2	2	2	2	2	..	1	59	56	19	31	3	11	32	19	115	10
	V	3	..	1	2	4	2	..	..	..	..	2	1	..	..	1	..	1	2	..	..	..	..	8	5	3	2	1	2	4	1	13	2
II. PARASITIC DISEASES	R	..	..	..	..	...	...	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...	...	...	...	...	...	...	...	...	...
	V	..	..	..	..	...	...	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...	...	...	...	...	...	...	...	...	...
III. DIETETIC DISEASES	R	..	..	..	..	...	...	..	..	..	..	..	1	..	2	..	..	..	..	..	..	..	..	...	3	1	...	...	2	...	...	3	...
	V	..	..	..	..	...	...	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...	...	...	...	...	...	...	...	...	...
IV. CONSTITUTIONAL DISEASES ..	R	..	..	..	1	...	1	..	..	1	..	1	1	3	1	3	6	6	21	10	9	4	3	28	42	11	11	1	17	17	13	70	7
	V	..	..	..	..	...	...	..	..	..	..	..	2	..	..	..	1	..	1	1	..	1	..	2	4	2	...	...	1	3	...	6	...
V. DEVELOPMENTAL DISEASES...	R	9	11	..	..	9	11	..	..	..	..	..	..	..	..	..	..	2	..	4	12	9	21	24	44	8	20	1	12	20	7	68	11
	V	..	..	..	..	...	...	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	...	...	...	...	1	...	...	1	...
VI. LOCAL DISEASES	R	17	17	15	5	32	22	6	5	3	2	8	8	13	19	28	29	30	38	32	54	21	19	173	196	56	105	10	47	105	46	369	43
	V	1	..	..	..	1	...	2	..	2	2	6	1	..	..	3	2	4	7	3	1	3	1	24	14	16	2	2	6	10	2	38	7
VII. DEATHS FROM VIOLENCE	R	1	1	2	1	3	2	..	..	..	..	2	..	2	..	1	2	1	..	..	2	1	..	10	6	3	4	...	1	6	2	16	5
	V	..	..	..	..	...	...	..	..	2	..	1	..	1	..	1	..	1	..	..	1	..	..	6	1	1	1	...	1	3	1	7	3
VIII. DEATHS FROM ILL-DEFINED and not SPECIFIED CAUSES	R	10	11	..	1	10	12	..	..	..	..	..	..	2	1	2	3	5	1	4	2	2	1	25	20	6	13	2	7	13	4	45	6
	V	..	1	..	..	...	1	..	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	2	1	...	1	1	...	1	...	3	...
Grand Totals	R	53	52	28	17	81	69	7	9	8	9	19	22	28	28	41	42	46	62	52	81	37	45	319	367	104	184	17	97	193	91	686	84
	V	4	1	1	2	5	3	2	..	4	2	10	4	1	..	6	3	6	10	4	2	5	1	43	25	22	0	4	11	21	4	68	12

TABLE IX. (Part II. RESIDENTS ONLY).

CAUSE OF DEATH.	AGES AND SEXES.																										WARDS.							
	0 to 1		1 to 5		Total under 5 years		5 to 15		15 to 25		25 to 35		35 to 45		45 to 55		55 to 65		65 to 75		75 and ov'r		TOTAL		Claremont	Talbot	Bank Hey	Brunswick	Foxhall	Waterloo	TOTAL	Institut'ns
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	1	2	3	4	5	6	7	8
SPECIFIC, FEBRILE, or ZYMOTIC DISEASES.																																
1.—MIASMATIC DISEASES.																																
Smallpox: Vaccinated	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Un-vaccinated	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
No statement	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Measles	...	...	2	2	2	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	2	1	2	...	1	...	...	4	...
Scarlet Fever	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	2	...	...	...	...	2	1
Typhus	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Whooping Cough	2	5	1	2	3	7	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	7	2	1	...	2	3	2	10	...
Diphtheria, Membranous Croup	...	...	1	1	1	1	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	2	2	1	...	...	1	...	4	2
Simple, Continued, and Ill-defined Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Enteric or Typhoid Fever	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1	...	1	...	...	...	...	...	2	1	...	...	...	1	1	1	3	3
Tabes Mesenterica	4	...	2	1	6	1	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	7	2	2	...	...	1	3	3	9	1
Tubercular Meningitis, Hydrocephalus	1	1	...	3	1	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	4	...	1	...	1	1	2	5	...
Phthisis	...	...	...	...	...	...	...	1	3	5	6	6	6	3	5	2	1	...	...	...	...	...	21	17	7	11	...	2	11	7	38	1
Other forms of Tuberculosis, Scrofula	...	...	2	...	2	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	3	1	1	...	2	1	...	...	4	...
Other Miasmatic Diseases	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Influenza	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1	...	1	...	1	1	3	1	1	...	...	1	1	4	...
2.—DIARRHŒAL DISEASES.																																
Simple Cholera	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diarrhœa, Dysentery	9	5	3	...	12	5	...	...	...	...	...	...	1	1	1	...	...	1	...	...	...	...	14	7	1	10	1	2	5	2	21	...
3.—MALARIAL DISEASES.																																
Remittent Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Ague	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

TABLE IX. (Part II.—Cntinued).

CAUSE OF DEATH.	AGES AND SEXES.																								WARDS.							
	0 to 1		1 to 5		Total under 5 years		5 to 15		15 to 25		25 to 35		35 to 45		45 to 55		55 to 65		65 to 75		75 and ov'r		TOTAL		Claremont	Talbot	Bank Hey	Brunswick	Foxhall	Waterloo	TOTAL	Institut'ns
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	1	2	3	4	5	6	7	8
4.—ZOOGENOUS DISEASES.																																
Cowpox and Effects of Vaccination																																
Other Diseases, Hydrophobia, Glanders, Splenic Fever																																
5.—VENEREAL DISEASES.																																
Syphilis		1				1																		1	1						1	
Gonorrhœa, Stricture of Urethra																																
6.—SEPTIC DISEASES.																																
Erysipelas											1								1				2			1			1		2	
Pyæmia, Septicæmia																			1	1			1	1					1	1	2	
Puerperal Fever										1		4		1										6	1	1			4		6	2
II.—PARASITIC DISEASES.																																
Thrush and other Vegetable Parasitic Diseases																																
Worms, Hydatids, and other Animal Parasitic Diseases																																
III.—DIETETIC DISEASES.																																
Want of Breast Milk, Starvation																																
Scurvy																																
Chronic Alcoholism												1		2										3	1			2			3	
Delirium Tremens																																

TABLE IX. (Part II.—Continued).

CAUSE OF DEATH.	AGES AND SEXES. 0 to 1		1 to 5		Total under 5 years		5 to 15		15 to 25		25 to 35		35 to 45		45 to 55		55 to 65		65 to 75		75 and ov'r		TOTAL		WARDS Claremont	Talbot	Bank Hey	Brunswick	Foxhall	Waterloo	TOTAL	Institut'ns
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	1	2	3	4	5	6	7	8
IV.—CONSTITUTIONAL DISEASES																																
Rheumatic Fever, Rheumatism of the Heart									1														1						1		1	
Rheumatism											1					1		1				1	1	3	2		1	1			4	
Gout																					1		1							1	1	
Rickets				1		1																		1					1		1	
Cancer, Malignant Disease												1	2	1	2	5	4	14	7	7	1	2	16	30	7	7		11	11	10	46	8
Purpura, Hæmorrhagic Diathesis																																
Anæmia, Chlorosis, Leucocythæmia																		3						3	1			2			3	
Glycosuria, Diabetes Mellitus															1		2	3	3	2	1		7	5	1	4		3	3	1	12	
Other Constitutional Diseases													1								1		2						1	1	2	
V.—DEVELOPMENTAL DISEASES																																
Premature Birth	7	9			7	9																	7	9	4	4		1	5	2	16	
Atelectasis																																
Congenital Malformations	2	2			2	2																	2	2				1	2	1	4	1
Old Age																	2		4	12	9	21	15	33	4	16	1	10	13	4	48	10
VI.—LOCAL DISEASES.																																
I.—DISEASES OF NERVOUS SYSTEM.																																
Inflammation of Brain or Membranes	1	2			1	2								1					2				3	3	1	1		2	1	1	6	
Apoplexy, Softening of the Brain, Hemiplegia, Brain Paralysis											1	1		1	4	1	7	11	5	16	9	7	26	37	11	17	2	6	18	9	63	5
Insanity, General Paralysis of the Insane												1			1	1				1			1	3				2		2	4	2
Epilepsy													2			1							2	1				1	1	1	3	1
Convulsions	6	3			6	3																	6	3	1	5			2	1	9	

TABLE IX. (Part II.—Continued).

CAUSE OF DEATH.	AGES AND SEXES.																								WARDS.							
	0 to 1		1 to 5		Total under 5 years		5 to 15		15 to 25		25 to 35		35 to 45		45 to 55		55 to 65		65 to 75		75 and ov'r		TOTAL		Claremont	Talbot	Bank Hey	Brunswick	Foxhall	Waterloo	TOTAL	Institut'ns
	M	*F*	*M*	*F*	*M*	*F*	*M*	*F*	*M*	*F*	*M*	*F*	*M*	*F*	*M*	*F*	*M*	*F*	*M*	*F*	*M*	*F*	*M*	*F*	1	2	3	4	5	6	7	8
Laryngismus Stridulus (Spasm of Glottis)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...	...	...	...	...	...	...	...
Disease of Spinal Cord, Paraplegia, Paralysis Agitans	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	2	..	..	1	..	..	..	3	2	...	1	...	1	2	1	5	1
Other Diseases of Nervous System	..	..	..	..	..	..	..	..	..	..	1	1	..	1	1	..	1	1	..	..	..	..	3	3	...	3	1	...	2	...	6	...
2.—DISEASES OF ORGANS OF SPECIAL SENSE.																																
Of Ear, Eye, Nose	1	1	..	..	1	1	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	2	1	1	...	1	...	1	4	1
3.—DISEASES OF CIRCULATORY SYSTEM																																
Pericarditis	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	...	...	...	...	1	...	1	...
Acute Endocarditis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...	...	...	...	...	...	...	...
Valvular Diseases of Heart	..	..	..	..	..	..	..	..	..	..	2	2	2	6	2	5	6	6	3	9	1	1	16	29	7	14	...	7	13	4	45	7
Other Diseases of Heart	..	..	..	..	..	..	..	..	..	..	1	1	..	..	5	2	3	..	6	5	2	..	17	8	3	6	2	5	9	...	25	6
Aneurysm	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...	...	...	...	...	...	...	...
Embolism, Thrombosis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...	...	...	...	...	...	...	...
Other Diseases of Blood Vessels	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	1	..	..	1	2	...	...	1	1	...	1	3	...
4.—DISEASES OF RESPIRATORY ORGANS																																
Laryngitis	..	..	1	1	1	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	1	...	2	...	...	1	...	3	1
Croup	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...	...	...	...	...	...	...	...
Emphysema, Asthma	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...	...	...	...	...	...	...	...
Bronchitis	5	8	9	3	14	11	..	..	..	..	..	..	..	1	..	2	5	6	7	13	5	8	31	41	8	24	1	8	23	8	72	2
Pneumonia	..	..	1	1	1	1	1	1	1	..	1	..	2	1	3	5	2	1	2	..	1	1	14	10	2	9	1	2	7	3	24	3
Pleurisy	..	..	..	..	..	..	..	1	..	..	1	..	..	1	1	..	..	..	..	..	..	..	2	2	...	2	...	...	1	1	4	2
Other Diseases of Respiratory System	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..	..	..	2	1	..	..	4	1	1	2	...	1	1	...	5	2

TABLE IX. (Part II.—Continued).

CAUSE OF DEATH.	AGES AND SEXES.																								WARDS.							
	0 to 1		1 to 5		Total under 5 years		5 to 15		15 to 25		25 to 35		35 to 45		45 to 55		55 to 65		65 to 75		75 and ov'r		TOTAL		Claremont	Talbot	Bank Hey	Brunswick	Foxhall	Waterloo	TOTAL	Institut'ns
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	1	2	3	4	5	6	7	8
5.—DISEASES OF DIGESTIVE SYSTEM.																																
Dentition	1	1	2	...	3	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	1	...	1	...	...	2	1	4	...
Sore Throat, Quinsy	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Disease of Stomach	1	...	...	...	1	...	1	...	...	...	...	...	...	...	...	3	1	...	...	...	...	...	3	3	1	2	...	...	3	...	6	1
Enteritis	1	1	1	...	2	1	...	...	...	...	...	1	1	...	...	...	...	1	...	1	...	...	3	4	2	1	...	...	3	1	7	...
Obstructive Diseases of Intestines	...	1	...	...	...	1	...	...	...	...	...	1	...	1	...	...	...	1	...	...	1	1	1	5	...	1	...	1	2	2	6	2
Hernia	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Peritonitis	1	...	...	...	1	...	1	...	...	...	...	...	...	...	...	1	...	...	...	1	...	...	2	2	1	...	...	...	2	1	4	1
Ascites	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cirrhosis of Liver	...	...	...	...	...	...	...	...	...	...	...	...	2	...	2	1	1	1	1	1	...	...	6	3	1	2	1	1	1	3	9	...
Jaundice and other Diseases of Liver	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	1	...	1	1	...	3	2	2	1	1	...	1	...	5	1
Other Diseases of Digestive System	...	...	1	...	1	...	...	...	1	...	...	...	...	1	...	...	...	...	...	...	...	...	2	1	...	1	...	1	1	...	3	1
6.—DISEASES OF LYMPHATIC SYSTEM.																																
Of Lymphatics and Spleen	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
7.—DISEASES OF GLANDLIKE ORGANS OF UNCERTAIN USE.																																
Bronchocele, Addison's Disease	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1	...	2	...	...	...	...	1	3	2	...	...	...	1	1	4	...
8.—DISEASES OF URINARY SYSTEM.																																
Nephritis	...	...	...	...	...	...	...	1	1	...	...	...	...	3	5	2	2	3	1	2	...	...	9	11	7	4	...	4	3	2	20	2
Bright's Disease, Albuminuria	...	...	...	...	...	...	...	...	...	...	...	...	2	1	...	...	1	2	...	1	1	...	4	4	1	3	...	...	3	1	8	2
Disease of Bladder or of Prostate	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1	...	...	1	1	2	1	1	...	1	...	...	3	1
Other Diseases of the Urinary System	...	...	...	...	...	...	...	...	...	1	...	...	...	1	...	...	...	1	...	...	...	...	...	3	...	1	...	...	1	1	3	...

TABLE IX. (Part II.—Continued).

CAUSE OF DEATH.	AGES AND SEXES.																										WARDS							
	0 to 1		1 to 5		Total under 5 years		5 to 15		15 to 25		25 to 35		35 to 45		45 to 55		55 to 65		65 to 75		75 and ov'r		TOTAL		Claremont	Talbot	Bank Hey	Brunswick	Foxhall	Waterloo	TOTAL	Institut'ns
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	1	2	3	4	5	6	7	8
9.—DISEASES OF REPRODUCTIVE SYSTEM																																
(a) *Of Organs of Generation.*																																
Male Organs	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1	..	1	..	..	..	..	..	1	1
Female Organs	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..	..	1	..
(b) *Of Parturition.*																																
Abortion, Miscarriage	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Puerperal Convulsions	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Placenta Prævia, Flooding	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Other Accidents of Childbirth	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
10.—DISEASES OF BONES AND JOINTS.																																
Caries, Necrosis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	1	..	..	..	..	..	1	..
Arthritis, Osteitis, Periostitis	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1	..	..	1	1
Other Diseases of Bones and Joints	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
11.—DISEASES OF INTEGUMENTARY SYSTEM.																																
Carbuncle, Phlegmon	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1	1	..	..	..	..	..	1	..
Other Diseases of Integumentary System	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
VII.—DEATHS from VIOLENCE																																
1.—ACCIDENT OR NEGLIGENCE.																																
Fractures and Contusions	..	..	..	1	..	1	..	..	..	..	1	..	1	..	..	1	..	..	..	..	1	..	3	2	1	1	..	1	2	..	5	2
Gunshot Wounds	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Cut, Stab	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Burns, Scalds	1	..	1	..	2	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	2	1	1	..	..	..	1	1	3	3

TABLE IX. (Part II.—Continued).

CAUSE OF DEATH.	0 to 1		1 to 5		Total under 5 years		5 to 15		15 to 25		25 to 35		35 to 45		45 to 55		55 to 65		65 to 75		75 and ov'r		TOTAL		Claremont	Talbot	Bank Hey	Brunswick	Foxhall	Waterloo	TOTAL	Institut'ns
	M	*F*	*M*	*F*	*M*	*F*	*M*	*F*	*M*	*F*	*M*	*F*	*M*	*F*	*M*	*F*	*M*	*F*	*M*	*F*	*M*	*F*	*M*	*F*	1	2	3	4	5	6	7	8
Poison																				1				1		1					1	
Drowning			1		1																		1			1					1	
Suffocation		1				1							1										1	1					2		2	
Otherwise																																
2.—HOMICIDE.																																
Manslaughter																																
Murder																																
3.—SUICIDE.																																
Gunshot Wounds																																
Cut, Stab																																
Poison																																
Drowning																				1				1					1		1	
Hanging											1				1								2			1				1	2	
Otherwise																	1						1		1						1	
VIII.—DEATHS from ILL-DEFINED and not SPECIFIED CAUSES.																																
Dropsy																																
Debility, Atrophy, Inanition	10	9		1	10	10																	10	10	3	5	1	1	8	2	20	3
Mortification																			1		2		3			1		1		1	3	
Tumour																																
Abscess																																
Hæmorrhage																																
Sudden Death (cause not ascertained)																																
Causes not specified or ill-defined																																
Natural Causes		1				1							2	1	2	3	5	1	3	2		1	12	9	3	7	1	4	5	1	21	2
Want of Attention at Birth		1				1																		1				1			1	
Totals	53	52	28	17	81	69	7	9	8	9	19	22	28	28	41	42	46	62	52	81	37	15	319	367	104	184	17	97	193	91	686	82

TABLE IX. (Part III. VISITORS ONLY).

CAUSE OF DEATH.	AGES AND SEXES																										WARDS.							
	0 to 1		1 to 5		Total under 5 years		5 to 15		15 to 25		25 to 35		35 to 45		45 to 55		55 to 65		65 to 75		75 and ov'r		TOTAL		Claremont	Talbot	Bank Hey	Brunswick	Foxhall	Waterloo	TOTAL	Institut'ns
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	1	2	3	4	5	6	7	8
I.—SPECIFIC, FEBRILE, OR ZYMOTIC DISEASES.																																
1.—MIASMATIC DISEASES.																																
Scarlet Fever	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	1	1
Enteric or Typhoid Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1	1	...	...	...	...	...	1	1
Tubercular Meningitis, Hydrocephalus	...	...	1	1	1	1	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	2	1	...	...	1	...	2	...	3	...
Phthisis	...	...	...	...	...	...	...	...	...	...	2	1	...	...	...	...	1	1	...	...	...	...	3	2	2	...	...	1	1	1	5	...
2.—DIARRHŒAL DISEASES.																																
Diarrhœa, Dysentery	3	...	...	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	...	...	1	...	1	1	...	3	...
IV.—CONSTITUTIONAL DISEASES																																
Rheumatic Fever, Rheumatism of the Heart	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1	...	1	...	...	...	...	...	1	...
Cancer, Malignant Disease	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1	...	1	...	...	1	...	1	3	1	...	...	1	2	...	4	...
Glycosuria, Diabetes Mellitus	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1	...	1	...
V.—DEVELOPMENTAL DISEASES																																
Old Age	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	1	...	...	1	...

TABLE IX. (Part III. Visitors only—Continued).

CAUSE OF DEATH.	AGES AND SEXES. 0 to 1 M	0 to 1 F	1 to 5 M	1 to 5 F	Total under 5 years M	Total under 5 years F	5 to 15 M	5 to 15 F	15 to 25 M	15 to 25 F	25 to 35 M	25 to 35 F	35 to 45 M	35 to 45 F	45 to 55 M	45 to 55 F	55 to 65 M	55 to 65 F	65 to 75 M	65 to 75 F	75 and ov'r M	75 and ov'r F	TOTAL M	TOTAL F	WARDS Claremont 1	Talbot 2	Bank Hey 3	Brunswick 4	Foxhall 5	Waterloo 6	TOTAL 7	Institut'ns 8
VI.—LOCAL DISEASES.																																
1.—DISEASES OF NERVOUS SYSTEM.																																
Apoplexy, Softening of Brain, Hemiplegia, Brain Paralysis																1	1	3	1				2	4	4			1	1		6	1
Epilepsy											1							1					1	1	1		1				2	
Other Diseases of Nervous System											1												1		1						1	
3.—DISEASES OF CIRCULATORY SYSTEM																																
Valvular Diseases of Heart							1		1	1	1									1	1	1	4	3	1			2	3	1	7	1
Other Diseases of Heart															1		1	2	1				3	2	3		1			1	5	
Other Diseases of Blood Vessels																					1		1		1						1	
4.—DISEASES OF RESPIRATORY ORGANS																																
Bronchitis																		1	1				1	1	1	1					2	
Pneumonia	1				1						1				2		1						5		2	1		2			5	
5.—DISEASES OF DIGESTIVE SYSTEM.																																
Enteritis																					1		1		1						1	
Obstructive Diseases of Intestines											1					1							1	1				1	1		2	1
Other Diseases of Digestive System							1		1	1		1											2	2	1				3		4	3

TABLE IX. (Part III.—Visitors only—Continued).

CAUSE OF DEATH.	AGES AND SEXES. 0 to 1 M	0 to 1 F	1 to 5 M	1 to 5 F	Total under 5 years M	Total under 5 years F	5 to 15 M	5 to 15 F	15 to 25 M	15 to 25 F	25 to 35 M	25 to 35 F	35 to 45 M	35 to 45 F	45 to 55 M	45 to 55 F	55 to 65 M	55 to 65 F	65 to 75 M	65 to 75 F	75 and ov'r M	75 and ov'r F	Total M	Total F	WARDS. Claremont 1	Talbot 2	Bank Hey 3	Brunswick 4	Foxhall 5	Waterloo 6	Total 7	Institut'ns 8
6.—Diseases of Urinary System.																																
Nephritis											I												I						I		I	I
Bright's Disease, Albuminuria																	I						I						I		I	
VII.—DEATHS FROM VIOLENCE.																																
1.—Accident or Negligence.																																
Fractures and Contusions													I							I			I	I		I			I		2	I
Drowning									I						I								2		I					I	2	
3.—Suicide.																																
Gunshot Wounds									I		I												2						2		2	2
Hanging																	I						I					I			I	
VIII.—DEATHS from ILL-DEFINED and not SPECIFIED CAUSES.																																
Debility, Atrophy, Inanition		I				I																		I					I		I	
Natural Causes											I				I								2			I	I				2	
Totals	4	I	I	2	5	3	2	..	4	2	10	4	I	..	6	3	6	10	4	2	5	I	43	25	22	6	4	II	2I	4	68	I2

PART II.

INFECTIOUS DISEASES.

NOTIFICATION OF INFECTIOUS DISEASES DURING THE YEAR.

The following notifications were received :—

Scarlet Fever	181
Diphtheria	41
Enteric Fever	12
Puerperal Fever	7
Erysipelas	20
Measles	660
	921

The comparison of these figures with those of the years from 1894 will be seen in Table XVII., page 62, and it will be observed that the notifications for the year under review, are considerably fewer than in the previous year. In my report for 1909, I stated that the notifications which had been received in the early portion of 1910 (i.e., up to the time of writing that report) pointed to a marked abatement in the incidence of infectious disease, and this prediction has been fully verified.

The notifications, as they occurred month by month, are seen in the following Table :—

TABLE XV.

(Cases of Infectious Disease notified).

DISEASE.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTALS.
Small Pox	—	—	—	—	—	—	—	—	—	—	—	—	—
Measles..........	14	70	13	21	8	21	18	24	17	81	121	252	660
Scarlet Fever ...	31	14	19	22	7	10	11	16	19	12	14	6	181
Diphtheria	1	3	9	2	1	4	6	6	1	3	1	4	41
Membranous Croup.........	—	—	—	—	—	—	—	—	—	—	—	—	—
Enteric Fever ...	—	1	1	1	3	—	—	1	—	—	3	2	12
Puerperal Fever	—	1	—	—	—	2	1	1	—	—	1	1	7
Erysipelas.........	2	2	—	—	1	1	3	1	2	1	4	3	20
Chicken Pox ...	29	47	18	21	3	11	2	4	12	17	40	47	251
TOTALS	77	138	60	67	23	49	41	53	51	114	184	315	1,172

In Table XIII. in the Appendix will be found a classification showing the number of persons attacked at various age-periods, and also the number of cases removed to Hospital from each locality.

The next Table shows the number of houses infected with the different diseases for each month of the year :—

TABLE XVI.

DISEASE.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTALS.
Small Pox	—	—	—	—	—	—	—	—	—	—	—	—	—
Measles...........	12	36	10	16	4	16	13	18	12	53	71	162	423
Scarlet Fever ...	22	14	16	15	7	9	9	15	15	10	10	5	147
Diphtheria	1	3	9	2	1	4	6	6	1	3	1	4	41
Enteric Fever ...	—	1	1	1	3	—	—	1	—	—	3	2	12
Puerperal Fever	—	1	—	—	—	2	1	1	—	—	1	1	7
Erysipelas.........	2	2	—	—	1	1	3	1	2	1	4	3	20
Membranous Croup	—	—	—	—	—	—	—	—	—	—	—	—	—
Chicken Pox ...	18	33	13	15	3	8	2	3	8	14	29	35	181
TOTALS	55	90	49	49	19	40	34	45	38	81	119	212	831

TABLE XVII.

Cases of Infectious Diseases notified during the years 1894-1910 (inclusive).

	1894	1895	1896	1697	1898	1899	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910
Smallpox	20	8	—	—	—	—	—	4	2	22	8	3	9	—	—	—	—
Diphtheria	11	17	6	7	10	13	24	131	74	40	43	48	53	84	61	96	41
Membranous Croup ..	2	—	—	—	—	—	—	3	1	—	3	1	1	—	—	—	—
Erysipelas	—	—	—	—	—	—	14	13	13	19	26	17	18	13	18	38	20
Scarlet Fever	76	154	208	177	77	141	187	271	197	257	179	200	183	177	238	348	181
Typhus Fever	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—
Enteric Fever	61	79	66	50	67	59	68	58	70	42	28	51	39	41	65	48	12
Puerperal Fever........	1	1	1	2	5	5	3	2	2	3	5	3	2	2	3	4	7
Measles	320	108	148	794	259	370	302	532	863	127	1386	871	389	309	1268	834	660
Rötheln	8	2	2	—	—	1	2	5	5	5	13	27	6	1	—	—	—
TOTALS	499	369	431	1,031	418	589	600	1,019	1,227	515	1,691	1,221	700	627	1,653	1,368	921

SCARLET FEVER.

Notifications, 181. Deaths, 3.

The ages and sexes of the notified cases were as follows :—

	Males.	Females.	Total.
Under 5 years	20	26	46
5 years to 10 years	46	45	91
10 ,, 14 ,, ...	16	15	31
14 ,, 20 ,, ...	4	4	8
20 ,, 25 ,, ...	1	—	1
25 ,, 30 ,, ...	—	2	2
30 years and over	1	1	2
Totals.....	88	93	181

The Ward incidence in each of the four quarters of the year was as follows :—

	1st Quarter.	2nd Quarter.	3rd Quarter.	4th Quarter.	Total 1910	1909	1908	1907	1906	1905
Claremont...	15	8	13	9	45	57	29	32	19	32
Talbot	14	8	4	6	32	62	51	39	60	52
Bank Hey ...	—	—	1	—	1	8	1	7	5	1
Brunswick...	14	4	9	5	32	56	32	22	16	26
Foxhall	14	9	17	10	50	135	94	50	60	74
Waterloo ...	7	10	2	2	21	30	31	27	23	15
Totals ...	64	39	46	32	181	348	238	177	183	200

The epidemic of Scarlet Fever which occurred towards the end of 1909 showed marked signs of abatement in the beginning of 1910, and about the end of April, the notifications were at their usual rate, and it will be seen from Table XV., on page 60, that the monthly incidence of this disease had fallen to 7, in May.

The mode of dealing with the cases was given in detail in my 1909 Report, and consisted of the following:—(1) Isolation of cases at the Sanatorium; (2) Search for missed cases (in the month of January, Dr. Bunting, the Assistant School Medical Officer, gave much assistance in this respect, by visiting affected schools, and examining the scholars in the classes); (3) Disinfection of infected premises.

I have kept carefully in mind the utility and advisability of closing some of the schools, but in spite of pressure brought upon me, from various sources, I refrained from doing so.

Of the 181 cases which were notified, 122, or 67.40 per cent., were school children between the ages of 5 and 14 years, there being 60 boys and 62 girls.

The 181 cases occurred in 147 houses. In 120 houses there was one case each, in 21 houses two cases each, in five houses three cases each, and in one house four cases.

One-hundred and fifty-six of the cases, or 86 per cent. were removed to the Sanatorium. This high figure has been maintained in Blackpool for many years, and the necessity for removal of as large a percentage as possible of Infectious Diseases from dwelling houses to an Institution where they are efficiently isolated has been borne in mind.

The case mortality was 1.66 per cent., and the death-rate was 0.05 per 1,000 of the population. The ages and sexes of the fatal cases were :—Males, Nil ; Females, $2\frac{7}{12}$, 5, $10\frac{9}{12}$ years, respectively. Two of the three fatal cases occurred among Hospital patients.

DIPHTHERIA.

Notifications, 41. Deaths, 4.

The sexes and age groups of the notified cases were as follows :—

	Males.	Females.	Total.
Under 5 years	2	3	5
5 and under 10 years	8	13	21
10 ,, 14 ,, ...	4	5	9
14 ,, 20 ,, ...	—	1	1
20 ,, 25 ,, ...	—	2	2
25 ,, 30 ,, ...	—	—	—
30 and over	2	1	3
Totals................	16	25	41

The total number of cases notified is a very satisfactorily low figure, and on referring to Table XVII., on page 62, it will be seen that not since 1903 have there been fewer cases in any one year. In my Report for 1909 it was my unpleasant duty to call your attention to the fact that the 1909 figure was in excess of all previous years except 1901, and it is, therefore, with much satisfaction that I give such a different tone to my remarks on the disease for 1910.

Thirty of the cases, or 73 per cent., were of children of school age (5 to 14), though no special school was affected, nor was the disease limited to any part of the town. Twenty-nine of the cases, or 70.73 per cent., were removed to Hospital. The ages and sexes of the four fatal cases were as follows :

Males.........$4\frac{7}{12}$, $6\frac{5}{12}$, years .....Total 2
Females......$3\frac{6}{12}$, $5\frac{6}{12}$. years ......Total 2
4

Two of the deaths occurred in cases treated in Hospital, and two in cases which were kept at home. The case mortality of the Hospital cases was 6.9 per cent., and of the home cases 16.6 per cent. The total case mortality was 9.97 per cent., and the death-rate from this disease was 0.066 per 1,000 of the population. The months in which the cases were notified are seen in Table XV., page 60.

The Ward incidence for the four quarters of the year was as follows:—

	1st Quarter.	2nd Quarter.	3rd Quarter.	4th Quarter.	Total 1910	1909	1908	1907	1906	1905
Claremont ...	3	—	—	1	4	19	16	7	17	10
Talbot	3	1	1	3	8	16	7	12	11	21
Bank Hey ...	—	—	—	—	—	3	1	—	1	3
Brunswick ...	1	2	1	—	4	17	12	13	8	3
Foxhall	5	4	8	3	20	27	16	28	10	11
Waterloo ...	1	—	3	1	5	14	9	24	6	—
Totals	13	7	13	8	41	96	61	84	53	48

In view of the fact that such a large percentage of the cases were in school children, all cases of sore throat in children should be considered suspicious, and should be excluded from school, until the non-infectious nature has been determined. Bacteriological examinations are conducted by the Health Department, free of charge.

In August, 1910, a circular was received from the Local Government Board authorising the provision of antitoxin, by Sanitary Authorities, and urging them to encourage its use by medical practitioners in their area. In submitting this circular to the Health Committee, I had much pleasure in reporting that the system, as recommended by the Board, had been in operation in Blackpool for many years, and as long ago as December, 1901, my predecessor, Dr. Coutts, notified the medical men of the following resolution of the Health Committee, viz.: "That the Medical Officer be authorised to supply at his discretion and free from cost anti-diphtheretic serum, to the Blackpool medical practitioners." The antitoxin is kept at the Health Office, and is given to medical practitioners, where application is made, irrespective of whether the cases are to be treated at home or in hospital.

SMALLPOX.

No cases of this disease occurred in Blackpool during 1910. Between the years 1896 and 1900, inclusive, the town was free from this disease; then there were cases in each year up to 1906, while 1907, 1908, 1909, and 1910 were again free.

The increased facilities which are being placed in the way of those who are not ashamed to avoid their moral obligations to the community, are undoubtedly leading to an increased number of people susceptible to the disease, and therefore when another outbreak occurs very stringent measures will have to be taken to prevent it attaining large and unwieldy proportions.

There is **only one safeguard against Smallpox, and that is efficient and recent vaccination.** The dangers of this simple operation are so remote that they may be disregarded.

VACCINATION.

Through the courtesy of Mr. Thomas Dixon, the Registrar of Births and Deaths, I am informed that the number of successful primary vaccinations during the year was only 635. This includes those performed by the private practitioners as well as by the public vaccinators. There were also 227 conscientious objectors. These figures are highly unsatisfactory, and mean that the percentage of our population susceptible to Small-pox is large and is increasing.

The comparison with previous years is as follows :—1910, 635; 1909, 555; 1908, 650; 1907, 809; 1906, 868.

In previous Reports, I have called attention to the anomalous state of affairs, whereby the working of the Vaccination Acts—essentially Sanitary Acts— is in the hands of the Poor Law Authority, and not in the hands of the Health Authority.

MEASLES.

Notifications, 660; Deaths, 4.

This disease (which has been notifiable in Blackpool since 1879) was very prevalent during 1910. In Table XVII. on page 62 a comparison with recent years will be found, and it will be seen that though the 1910 figure is above the average, it is considerably below the figure for the year immediately preceding—(1909, 834 cases). There were only four weeks during the year in which no cases were notified, but the large majority of the notifications were received between the beginning of the fourth week in September and the end of the year, 462, or 70.0 per cent of the cases occurring during that period.

The Ward incidence for each quarter of the year was as follows :—

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Total 1910
Claremont ...	10	4	15	94	123
Talbot	51	7	6	8	72
Bank Hey ...	—	—	3	3	6
Brunswick ...	3	2	8	49	62
Foxhall	21	30	23	238	312
Waterloo ...	12	7	4	62	85
Totals...	97	50	59	454	660

The ages and sexes of the notified cases were :—

	Males	Females	Total
Under 5 years	133	133	266
5 to 14 years	185	190	375
14 to 20 years	3	6	9
20 years and over	—	10	10
Totals	321	339	660

There is nothing particular to note in the relative incidence of the disease in the two sexes, but on examining the incidence on age periods, it will be observed that of the 660 cases, 266, or 40.3 per cent, occurred below the age of 5 years, 375, or 56.8 per cent. occurred during school life—or 5-14 years, and only 19, or 2.9 per cent. occurred after school life. It was necessary on several occasions to recommend closure of a school when it was particularly affected, and the lists of schools closed, and the periods for which they were closed, will be seen on page 84. The 660 cases occurred in 423 houses. In 259 houses there was one case each; in 111 houses, 2 each; in 39 houses, 3 each; in 10 houses, 4 each; in 2 houses, 5 each; and in 2 houses there were 6 cases.

There were 4 deaths from Measles during the year, all of which were residents. The case mortality works out at 0.60 per cent., while the death rate was 0.066 per 1000 of the population.

The ages and sexes of the fatal cases were :—

	Males	Females	Total
Under 5 years	2	2	4
5 to 14 years	—	—	—
Totals	2	2	4

The advisability and utility of the compulsory notification of Measles has been much discussed, especially in view of the fact that the disease assumed an epidemic form in many portions of the country during the latter part of 1910. It is doubtful whether notification has much effect in reducing the actual number of cases, because

Measles is highly infectious in its early stages before the characteristic rash appears, but in my opinion notification undoubtedly has a marked effect on the case mortality in that isolation is secured and therefore the risk of the special complication of Measles, viz., Broncho pneumonia, is lessened. The popular idea that a child is bound at some time or other to contract Measles is one of the most erroneous ideas that can exist, and the belief in it has in the past been the cause of the loss of many lives. While it is admitted that the infectivity of Measles is high, and susceptibility great, it should be borne in mind that for every year the attack is postponed the prognosis is better and the chances of a fatal complication more remote.

ENTERIC FEVER.

Notification, 12 ; Deaths, 4.

It is with much satisfaction that I call your attention to the small number of cases notified. I have searched carefully through the back Health Reports of Blackpool and have failed to find any such low figure as that for 1910, viz., 12. The nearest approach to it was in 1881, when, with a population of 14,000, 16 cases were notified. Working backward from 1910 the notifications were as follows :- 48, 65, 41, 39, 51, 28, 42, 70, and 58.

Considering the increasing size of the town, a diminution in the incidence of Enteric Fever is a matter for much satisfaction. The actual relationship of Enteric Fever to defective drainage has not yet been fully and satisfactorily determined, but defective general sanitation has undoubtedly more to do with the propagation of Enteric Fever than of any other infectious disease (except Typhus Fever, which is now practically non-existent), and I have no hesitation in stating that the vigorous sanitary campaign carried on by the Blackpool Health Authority is an important contributing factor in the diminution of Enteric Fever.

The months in which the cases were notified were as follows :—February 1, March 1, April 1, May 3, August 1, November 3, and December 2.

At the head of this paragraph it is stated that there were 12 cases and 4 deaths, which gives a case mortality of 33 per cent., but two of the deaths were of cases which had been notified in 1909, and therefore the case mortality was in reality 16.6 per cent. The death rate for this disease was 0.066 per 1,000 of the population.

The ages and sexes of the fatal cases were as follows :—Males of 53 and 59 years, and females of 16 and 61 years respectively.

The Widal blood test has been an aid to diagnosis and is carried out for all medical practitioners without charge. Specimens were taken in each of the 12 cases. 10 of them gave positive results, and of the remaining two, one passed through a typical attack of the disease.

Careful inquiries have been made into the cases, and in 4 of them there was a history of having eaten shellfish, one case was imported from another district, and one case gave a history of having been at some drainage works prior to onset. In the remaining cases no trace of any infecting agent could be detected.

The ages and sexes of the notified cases were as follows :—

AGE PERIOD.	Males.	Females.	Total.
Under 5 years	—	—	—
5 and under 10 years ..	—	—	—
10 ,, 14 ,, ...	2	1	3
14 ,, 20 ,, ...	—	2	2
20 ,, 25 ,, ...	—	1	1
25 ,, 30 ,, ...	—	1	1
30 and over	3	2	5
Totals.....	5	7	12

Nine cases, or 75 per cent., were removed to Hospital.

The Ward incidence in each of the four quarters was as follows :—

Ward.	1st Quarter.	2nd Quarter.	3rd Quarter.	4th Quarter.	Total.
Claremont	—	1	—	—	1
Talbot	—	1	—	3	4
Bank Hey.........	—	—	—	—	—
Brunswick	—	1	—	—	1
Foxhall............	2	1	1	2	6
Waterloo	—	—	—	—	—
Totals......	2	4	1	5	12

In all instances where there are cases under observation, or where the patient is treated at home, typhoid pails are sent, into which the excreta are placed. These pails are changed daily, and their contents burned at the Destructor.

PUERPERAL FEVER.

Notifications, 7. Deaths, 6.

One of the deaths was a case of puerperal peritonitis, which had not been notified previously as Puerperal Fever, and of this case I have no particulars.

The particulars of the seven cases are as follows :—

Attended by medical man at confinement, 4. (3 were miscarriages).

Attended by medical man and midwife at confinement, 2.

Attended by other person (not midwife or doctor), 1 ; (miscarriage).

The onsets of the cases occurred :—

Same day as miscarriage	3
Three days after confinement ...	1
Four days do. ...	1
Seven days do. ...	1
Twenty eight days do. ...	1

The deaths occurred as follows :—

Four days after onset	1
Eight do.	2
Fifteen do.	1
Twenty-two do.	1

Three cases were removed to the Sanatorium for treatment, and one case was taken to the Victoria Hospital in the late stages, owing to the formation of an abscess in the knee joint.

In each case where a midwife was present she was suspended from attending any other case for a fortnight after she had left, and her instruments and apparatus were disinfected thoroughly.

ERYSIPELAS.

Notifications, 20. Deaths, 2.

The following were attributed as the causes of the disease :—

Injury	3
Cold	3
Diseased bone	1
No detected cause ...	13
	20

The location of the disease was as follows :—

Face, head, and neck...	17
Leg	2
Not stated	1

One of the cases was removed to the Sanatorium for treatment.

PRECAUTIONS TAKEN AGAINST THE SPREAD OF INFECTIOUS DISEASE.

DISINFECTION.

After cases of the chief notifiable diseases, the houses are fumigated with formaldehyde vapour after washing down the walls and furniture with a solution of perchloride of mercury, or spraying the walls with a solution of formaldehyde. The spraying machines purchased some years ago have given very good results. Clothes, bedding, &c., are removed to the Sanatorium, and disinfected in the steam disinfectors there; 24,497 articles were so treated during 1910.

In the case of Typhoid Fever and Diphtheria the drains are flushed with a solution of chloride of lime, and in case of an outbreak of disease in a particular district, the sewers in the district are similarly treated.

After cases of Measles, and after deaths from Phthisis or Cancer, fumigation of the room with formaldehyde is carried out.

All typhoid excreta, whether of cases treated at the Sanatorium or at home, are collected in special pails and burned at the Destructor.

Disinfectants are distributed on application at the Health Office to the houses where infectious diseases have occurred.

The drains are tested after all cases of Enteric Fever and Diphtheria, and after Diarrhœa deaths.

The following leaflet is left at houses where infectious disease exists:—

COUNTY BOROUGH OF BLACKPOOL.

PUBLIC HEALTH DEPARTMENT.

OUTBREAK OF INFECTIOUS DISEASE.

The following precautions are recommended in order to diminish as far as possible the risk of spread of the disease:—

I.—WHERE THE PATIENT IS TREATED AT HOME:—

The BEDROOM should be as remote as possible from other occupied parts of the house, and should be one with a fire-place. All unnecessary articles of furniture, and all carpets, curtains, and the contents of drawers and wardrobes, should be removed. A sheet should be hung outside the bedroom door and kept constantly wet with a solution of disinfectant.

The ATTENDANT OR NURSE should not undertake any other duties than attendance upon the patient. It is especially dangerous for her to do the cooking for any other members of the household. She should not sleep or take her meals in the sick room. She should keep inside the door of the patient's room a large apron which would cover her from the neck to the feet and also cover the arms to the wrists (a night-dress answers this purpose admirably). She should, whenever entering the bedroom, put on this apron and keep it on while in the room; then on leaving she should take it off, hang it up on the inside of the door, and wash her hands in a solution of disinfectant, a basin of which should be kept constantly outside the bed-room door. The attendant should have some exercise in the fresh air daily. Motions from the patient should be received in a chamber containing some disinfectant.

Discharges from the patient's nose, ears, or mouth should be wiped with pieces of soft rag, and burned.

The sweepings of the bedroom floor should be burned.

Food not eaten by the patient should be burned, and not given to any of the other children.

Soiled linen must not be sent to a laundry, but should be placed in a solution of disinfectant and then boiled in plain water.

Letters should not be written in a sick room, and all toys, books, etc. should be burned unless they have been efficiently disinfected. No persons from an infected house shall attend day school, Sunday School, or place of public resort. No books shall be borrowed from the Free Library.

After a case of Infectious Disease, no books can be borrowed from the Free Library unless a certificate of disinfection be obtained from the Public Health Office.

Special Precautions in case of Typhoid or Enteric Fever :—

In addition to the above, all urine and fæces from the patient must be placed in the covered iron pail which will be provided by the Corporation and will be changed frequently.

When the patient is considered to be free from infection, a warm bath should be given, with a little disinfectant in it, and clean non-infected clothes put on. The bedroom should then be closed until the Corporation officials disinfect it.

II.—Where the Patient is Removed to Hospital :—

All clothing which has been used by the patient and the attendant should be left in the bedroom from which the patient is removed. The room should be closed and locked until the Corporation disinfectors arrive.

Three night-dresses or night-shirts should be sent with the patient to the Sanatorium.

When the patient is ready to get up, the parent will be notified by the matron, and it is desired that ordinary outdoor clothes and a pair of slippers be then sent to the Sanatorium.

All articles of clothing should be distinctly marked with the patient's name.

All library books must be handed to the Corporation disinfector.

Children from this house, EXCEPT THOSE MENTIONED BELOW, shall NOT attend school until a letter or notice from the Medical Officer of Health is received, giving the date on which school can be recommenced, and this notice must be given to the head master or head mistress on the first day of return to school.

Names of children (if any) who may remain in attendance at school as per instructions of the Medical Officer of Health :—

....

....

Inspector's Initials.................................

All disinfection is carried out by the Corporation free of cost. Disinfectant, with instructions as to the use of same, is suppled free of cost to infected houses on application at the Public Health Office.

When requested please produce this form for the inspection of the School Attendance Officers.

Extracts from Acts of Parliament dealing with Infectious Diseases.

(1)—Any person who—

(*a*) While suffering from any dangerous infectious disorder, wilfully exposes himself without proper precautions against spreading the said disorder in any street, public place, shop, inn, or public conveyance, or enters any public conveyance without previously notifying to the owner, conductor, or driver thereof that he is so suffering; or

(*b*) Being in charge of any person so suffering, so exposes such sufferer; or

(*c*) Gives, lends, sells, transmits, or exposes, without previous disinfection, any bedding, clothing, rags, or other things which have been exposed to infection from any such disorder,

will be liable to a penalty of FIVE POUNDS, and also to pay the expenses of disinfection of the conveyance.

(2)—No owner or driver of a public conveyance shall be required to convey any person suffering from any dangerous infectious disorder, until he has been paid a sufficient sum to cover the loss or expense of disinfecting his conveyance.

(3) Any person who knowingly lets for hire any house, room, or part of a house in which any person has been suffering from any dangerous infectious disorder without the same and all articles therein liable to retain infection having been disinfected to the satisfaction of a legally qualified medical practitioner, as testified by a certificate signed by him, will be liable to a penalty of TWENTY POUNDS. (An Inn is included in this section.)

(4) And any person in letting, or shewing for the purpose of letting for hire any such house, or part thereof, and knowingly making a false answer to any question as to the existence then, or within six weeks previously, of any dangerous infectious disorder in such house, or part thereof, will be liable to a penalty of TWENTY POUNDS, or to *imprisonment*, with or without hard labour, for ONE MONTH.

(5)—Every person ceasing to occupy a house or part of a house in which any person has within six weeks previously been suffering from any infectious disease who, on being questioned by the owner thereof, or by any person negotiating for the hire of such house or part of a house as to the existence within six weeks previously of any infectious disease, knowingly makes a false answer, shall be liable to a penalty of TEN POUNDS.

(6)—No person without the sanction in writing of the Medical Officer of Health, or of a registered medical practitioner, shall retain unburied elsewhere than in a public mortuary or in a room not used as a dwelling-place, sleeping-place, or workroom, FOR MORE THAN FORTY-EIGHT HOURS, the body of any person who has died of any infectious disease.

(7)—Any person who hires or uses a public conveyance other than a hearse for the conveyance of the body of a person who has died from any infectious disease, without previously notifying the owner or driver that the person whose body is to be conveyed died of infectious disease, and, after any such notification, any owner or driver of a public conveyance other than a hearse which has conveyed the body of a person who has died from infectious disease, who shall not immediately afterwards provide for the disinfection of such conveyance, shall be guilty of an offence.

(8)—Any person who shall knowingly cast into any ashpit, ashtub, or other receptacle for refuse matter, any infectious rubbish without previous disinfection, shall be guilty of an offence.

The Corporation believe that during the prevalence of infectious disease many cases of violation of the law, and consequent danger to public health, arise from ignorance and want of forethought; to prevent neglect from this cause the Corporation thus specially call your attention to the above provisions of the law, ALTHOUGH SUCH NOTICE IS NOT NECESSARY, nor will the absence of it afford any excuse in the event of any offence being committed.

E. W. REES JONES, M.D., D.P.H.,

Medical Officer of Health.

SCHOOL CLOSURE, 1910.

SCHOOL.	Cause.	CLOSED.	
		From	To
St. Kentigern's School (Infants' Department)	Measles.	February 2nd	February 21st
Revoe Council School (Infants' Department)	Do.	October 6th	October 23rd
St. Cuthbert's School (Infants' Department)	Do.	November 24th	December 10th
Claremont Council School	Do.	December 16th	Christmas Holidays.

THE SANATORIUM.

The number of cases admitted and discharged from the Sanatorium during the year will be seen in the table at the end of this paragraph. There were a large number of patients in at the beginning of the year, viz. :—75, but owing to the subsidence of infectious disease the number diminished gradually until at the end of the year there were only 16.

The 75 cases which remained in from 1909 consisted of 66 cases of Scarlet Fever, 4 of Diphtheria, 4 of Enteric Fever, and a suspected Diphtheria. Two of the cases of Enteric Fever died during the early part of 1910, but all the other cases were discharged convalescent. 228 fresh cases were admitted during 1910, consisting of 156 Scarlet Fever, 29 of Diphtheria, 9 of Enteric Fever, 19 of Measles, and 15 other cases. Thus there were during the year a total of 303 cases under treatment.

Nine deaths occurred in the Hospital during 1910, and at the end of the year there were 10 cases of Scarlet Fever, 4 of Enteric Fever, 1 of Measles and 1 other case under treatment.

In order to demonstrate the fluctuation of the work from year to year I have prepared the following table showing the total cases under treatment during a succession of past years.

1910	303	1906	304
1909	477	1905	270
1908	402	1904	254
1907	312		

SCARLET FEVER.—The number of cases of this disease with the sexes of the patients which remained in from 1909, admitted, died, and remaining in at the end of 1910 respectively will be seen in tabular form in the Table on page 87. The average stay of non-fatal cases was 48 days, and of the fatal cases 24 days.

The following are some of the complications or abnormal conditions of the Scarlet Fever cases :—

PEELING ON ADMISSION :—8 cases. The majority of these cases were not isolated prior to admission and therefore were infecting agents of several other cases.

SECOND ATTACK :—One patient who had a typical course of the disease was stated to have had a previous attack seven years age.

RHINORRHŒA (running nose) and OTORRHŒA, either alone, together, or in conjunction with some other complication :—43 cases.

NOT SCARLET FEVER :—3 cases sent in for observation as suspected Scarlet Fever proved not to have the disease.

HEART DISEASE :—5. In the majority of cases this was only slight and transient.

NEPHRITIS (Inflammation of the Kidneys) 3. Two of of these cases were cured but one was uncured on discharge.

ADENITIS :—The majority of the cases had some degree of swelling of the neck, but in five of them the swelling proceeded to the formation of an abscess and had to be surgically treated.

CHICKEN POX :—3 cases of Scarlet Fever developed Chicken Pox from a case which was admitted in the incubation stage of the disease.

MASTOID DISEASE :—2 cases requiring surgical treatment.

DIPHTHERIA.—Numerical details of these cases appear in the Table on page 87. Two deaths occurred out of 33 cases under treatment. Diphtheria anti-toxin was administered to almost all the cases and the average dosage was 6,600 units.

One case developed a Measles rash two days after admission, but prompt isolation served to prevent any spread of the disease to the other patients.

Seven cases sent in as suspected Diphtheria proved not to have the disease.

Five of the cases developed Paralysis of the soft palate as evidence in nasal tone of the voice.

One case of Diphtheria developed Scarlet Fever rash the day after admission, and one case was convalescing from Whooping Cough on admission.

ENTERIC FEVER.—13 cases of this disease were under treatment during the year, four of which had remained in from 1909, 3 of the cases died, 4 remained in at the end of 1910, and the remainder were discharged convalescent.

One case sent into Hospital as suspected Enteric Fever proved fortunately to be only a case of severe erysipelas. Particulars of the Widal test of the Enteric Fever cases are given on page 73.

MEASLES.—19 cases of this disease were admitted, and 18 of these were discharged convalescent, while one still remained in at the end of 1910.

TABLE XVIII.

CASES OF INFECTIOUS DISEASE REMOVED TO THE SANATORIUM :—

		Remaining in at end of 1909.	Admitted during 1910.	Discharged during 1910.	Died during 1910	Average stay of non-fatal cases.	Average stay of fatal cases.	Remaining in at end of 1910.
Scarlet Fever	M.	28	77	101	—	48	—	4
	F.	38	79	109	2	48	24	6
Diphtheria	M.	2	9	10	1	29	1	—
	F.	2	20	21	1	31	5	—
Enteric Fever	M.	3	5	4	2	55	39	2
	F.	1	4	2	1	68	1	2
Measles........................	M.	—	6	6	—	13	—	—
	F.	—	13	12	—	15	—	1
Other diseases...............	M.	—	2	2	—	8	—	—
	F.	1	13	11	2	18	8	1
Totals......................	—	75	228	278	9	—	—	16

The adminstrative duties have been carried out by the Matron, Miss Proctor, during the year in a most satisfactory manner, and the nursing staff have devoted themselves to their attendance upon the sick with ability and kindness. It is most gratifying to find patients, especially adults, express their appreciation of the institution, and those who are loudest in its praise are frequently those who protested most in the first instance against their removal there.

The details of the cost of the Hospital, as nearly as can be ascertained, are appended.

INFECTIOUS DISEASES HOSPITAL.

(SANATORIUM).

	£
Matron	87
Porters, Nurses, and other salaries	514
Provisions for Inmates, Staff, &c.	624
Gas, Coal, Water, Rates, and Taxes, and Insurance	629
Furniture, Cutlery, Crockery, &c.	36
Building Repairs	42
Gardening	86
Materials for Uniforms	45
Medicine and Medical Appliances	70
Washing and Cleaning Materials	58
Advertising, Printing and Stationery	23
Miscellaneous	50
	£2264
Less Receipts from Inmates	70
	£2194
Interest and Sinking Fund	1414
Special Expenditure, Renewal of Household Furniture, &c.	280
	£3888

Up to 1905 it was customary to give the cost for the financial year ending 31st March, but it is obviously more desirable to give, if possible, the actual cost for the year under review. I have accordingly made arrangements which enable me to give the cost of the upkeep of the Hospital for the year beginning 1st January, 1910, and ending 31st December, 1910.

During the year ending 31st December the average stay in the Hospital of the 287 patients was 41 days.

Not including the interest and sinking fund in the Hospital expenses, the cost per week (per patient) was £1 5s., 8.2d., or £66 15s. 6.4d. per year, as compared with £1.2s. 11.5d. per week in 1909.

Deducting the amount received from patients, and including interest and sinking fund, and the special expenditure for renewal of household furniture, linen, &c., the actual loss to the ratepayers of each patient averaged £2 5s. 6.1d. per week, as compared with £1 13s. 9.4d. per week in 1909. *In this expenditure, the cost of disinfecting articles sent from houses in the Borough to be disinfected is included.*

By keeping a daily record of all the inmates of the Hospital (patients and staff) I have been able to estimate accurately the cost of the maintenance per head per week. This includes feeding only (groceries, greengroceries, milk fish, and meat), and works out at an average for the year of 4s. 11d. per head per week.

I consider this an extremely satisfactory figure. It is higher than the figure for last year, but this is due entirely to the fact that there were fewer patients. When it is remembered that all the articles of food are of the highest quality, the economy practised will be realised.

PART III.

GENERAL SANITARY WORK.

NOTIFICATION OF BIRTHS ACT, 1907.

This Act has been in force since the 11th of February, 1908. Its main provisions are as follows :—

Copy of Section I. of the Notification of Births Act, 1907.

SECTION I.—The provisions of this section shall have effect in the area of any local authority in which this Act is adopted by that authority in accordance with the provisions of this Act :—

(1) In the case of every child born in an area in which this Act is adopted it shall be the duty of the father of the child, if he is actually residing in the house where the birth takes place at the time of its occurrence, and of any person in attendance upon the mother at the time of, or within six hours after the birth, to give notice in writing of the birth to the Medical Officer of Health of the District in which the child is born, in manner provided by this section.

(2) Notice under this section shall be given by posting a prepaid letter or post card addressed to the Medical Officer of Health at his Office or Residence, giving the necessary information of the birth within thirty-six hours after the birth,

or by delivering a written notice of the birth at the Office or Residence of the Medical Officer within the same time: and the Local Authority shall supply without charge addressed and stamped postcards containing the form of notice to any Medical Practitioner or Midwife residing or practising in their area, who applies for the same.

(3) Any person who fails to give notice of a birth in accordance with this section shall be liable on summary conviction to a penalty not exceeding twenty shillings: Provided that a person shall not be liable to a penalty under this provision if he satisfies the court that he had reasonable grounds to believe that notice had been duly given by some other person.

(4) The notification required to be made under this Act shall be in addition to and not in substitution for the requirements of any Act relating to the registration of births; and any registrar of births and deaths whose sub-district or any part thereof is situate within any area in which this Act is adopted shall at all reasonable times have access to notices of births received by the Medical Officer of Health under this Act, or to any book in which those notices may be recorded, for the purpose of obtaining information concerning births which may have occurred in his sub-district.

(5) This section shall apply to any child which has issued forth from its mother after the expiration of the twenty-eighth week of pregnancy, whether alive or dead.

The Act ensures that births shall come to the knowledge of the Medical Officer of Health at the earliest possible moment, and that in those cases where it is necessary to offer advice on the rearing of infants, the opportunity for doing so shall not be deferred until irreparable damage has been done by injudicious feeding.

Some of the medical practitioners still refrain from notifying births, and one has even gone the length of instructing the parents not to do so, but I feel that when the objects of the Act are fully appreciated, the opposition of these members of the profession will cease. I have personally approached some of the medical men who do not notify the births which they attend, and they have agreed to fall in with the requirements of the Act.

Of the 1,006 births which occurred during 1910, a Doctor was in attendance in 593 cases, or 58.9%, while in 400, or 39.8%, a certified midwife or some other person was in attendance. In 13 cases no information was obtainable.

Of the total births which were registered, 850, or 84.5%, were notified under the Notification of Births Act. These 850 births include 460 of the 593 Doctors' cases, and 390 of the 400 cases attended by other persons.

The work under this Act has been done entirely by the Health Visitor, under the direction of the Medical Officer of Health, and no fewer than 1,295 visits have been paid, including primary and subsequent visits. Advice has been given on the storage of food, on the feeding and clothing of infants, and a special point has been made of urging upon mothers the importance of persevering with the breast milk, even if it has to be supplemented by cow's milk suitably prepared. A copy of the booklet "How to Manage a Baby," by Mrs. Frank Stephens, has been left at many of the houses. Upon subsequent visits, observations were made upon the progress of the child, and upon the use which had been made of the advice on the previous visit. The feeding upon the whole has been more satisfactory, and the advice which has been asked for, both personally and by letter, shows a greater interest than in the past. The most trivial excuses are sometimes given for discontinuing breast feeding. One remarkable instance is worth recording, the mother stating that breast feeding was only an excuse for sitting down and getting into lazy habits ; the same mother not believing in vaccination as it would spoil the child's arm and look bad if she had to wear evening dress, and in due course the exemption order was applied for by her.

An incidental effect of the Notification of Births Act is the opportunity given for recommending vaccination, and in four cases the Health Visitor was able to induce parents to adopt this procedure who would otherwise not have done so.

In the Report for 1907, my predecessor Dr. Coutts, dwelt at some length on the subject of the unwanted child. I have refrained in my previous reports to you from mentioning the subject, but my experience in the town now enables me to state how fully I endorse all that he then stated.

Work among the illegitimate children occupies a large portion of the time of the Health Visitor. Out of about 60 cases marriage after the birth of the child has not occurred in any one, and only in 10 cases has the father contributed to the keep of the child in spite of the various court orders. The difficulty in tracing these cases arises from the mother taking service in another town and leaving no address. One case was visited 40 times last year, owing to the mother's callousness, the result being that in the end she was served with a notice by the N.S.P.C.C., and the child was taken away to Rochdale.

Requests for homes have been made in several instances, and in all cases suitable ones have been found.

Over 50 cases have been referred by the Health Department to the Ladies' Sick Poor Association and the assistance rendered by them has been most beneficial and acceptable. It requires some intimate knowledge of the conditions under which the poor live to be able to appreciate the work of such a Society as the Ladies' Sick Poor Association, and the co-operation of such work with that of a municipal body enhances the value of both of the bodies and secures much more beneficial results than if they worked independently of each other. I look forward with confidence to the help of the visiting members of the Association in the future.

Nine cases also have been referred to Inspector Brooker of the N.S.P.C.C., and the visits made by him had undoubtedly a salutary effect.

COMPARATIVE TABLE OF BIRTHS REGISTERED AND NOTIFIED.

	Registered under the Registration of Births Acts.	Registered Births Notified to Medical Officer of Health under Notification of Births Act.
Doctor in attendance at Birth	411	292
Doctor and Midwife	182	168
Midwife	367	365
Other Persons	33	25
No information	13	—
Totals	1,006	850

BIRTHS NOTIFIED TO THE MEDICAL OFFICER OF HEALTH FROM 1ST JANUARY TO 31ST DECEMBER, 1910.

Notified by.	Notification of Births.	Notification of Still-births.
Doctor..................	252	25
Doctor and Midwife	20	1
Midwife	437	20
Others..................	118	31
Totals.........	827	77

SPECIAL HOME OFFICE ENQUIRY.

During the year 1908, on the suggestion of the then Home Secretary, Mr. Herbert Gladstone, a special enquiry was conducted into the subject of the effect of the industrial employment of women on infantile mortality. The inquiry comprised all births which occurred during 1908, and each case was traced during the 12 months following the birth, and therefore the enquiry was not completed until the end of 1909. The following is a copy of the Report on the matter which I submitted to the Principal Secretary of State, Home Office :—

EMPLOYMENT OF MARRIED WOMEN.

Sir,

I beg to submit a short report on the above enquiry. Several factors contribute to make the report one which will probably differ considerably from the majority of reports on the same subject. In practically the whole of the cases the mothers are not industrially employed in the form of going out to a factory in the early morning and returning home later in the day, but almost all are employed in work of a domestic nature, such as charing, etc.

In many cases the houses are "company houses," i.e., houses which take in visitors for short periods, and it is difficult in these cases to give either an approximate idea of the average total earnings of the family, or the period before or after confinement when work was discontinued or resumed. The mothers do not —as in the case of a factory employee—cease work at a definite hour, but vary the amount of their work as their physical condition demands, increasing or decreasing it from day to day.

Another factor which has complicated the enquiry, and which I fear has tended to make the observations somewhat inaccurate, is the fact that the houses vary so much in size, and therefore also in rental. The houses comprised in the report are not as in some towns cottage property of the same or nearly the same size, but vary considerably, and the tenants' statements as to rents are not always to be relied upon.

The original enquiry comprised 446 cases, and these cases were disposed of as follows:—

(1) Traced throughout the first year of life	332
(2) Died during the first year of life	51
(3) Untraced	63

Of the total cases comprised in the report only five mothers were employed industrially, one in each of the following occupations:—(a) bottle washing; (b) tailoring; (c) dressmaking (both employed at home); (d) two in laundry work. In each of the five cases the child survived the first year of life, and therefore the infant mortality in this small group was "nil." The five mothers ceased work at three months, two at one month, and two at one day respectively before confinement. Their subsequent histories are as follows: (1) Resumed work at five weeks after confinement, and fed the child at the breast for sixteen weeks; (2) died of Puerperal Fever thirty days after confinement, and therefore the child was not put on the breast at all; (3) resumed work fourteen days after confinement, child at the breast twenty-four weeks; (4) resumed work at ten days and fed the child at the breast for twenty-four weeks; (5) resumed work at the twenty-second day, and the child was fed entirely on artificial food.

The other large group, namely, of mothers not industrially occupied, comprises 378 cases, and in 51 of these the child died before attaining the age of twelve months. The infant mortality was 135 per 1,000 births. Of the mothers 61 were under 25 years of age, 237 were between 25 and 35, while 80 were over 35 years.

With regard to the feeding of the 51 infants who died, the following information was obtained: Fed entirely on breast, 24; fed partly on breast, 4; fed artificially entirely, 17; not fed 6. Twenty children, or 39.2 per cent. died under one month; 8 or 15.7 per cent. in the second month; 7 or 13.7 per cent. in the third month; 8 between the third and sixth months; and 8 after six months.

The occupation of the mothers of these 51 children were:—Hawkers and miscellaneous, 4; charwomen and other domestic work, 8; housework, 39. It is difficult to state with precision how many of these were actually receiving payment for work done, and how many were merely keeping houses for their husbands, but it may be safely stated that the former class largely preponderates over the latter.

Of the 332 children who survived the first year the feeding was as follows:—Breast fed for one month or less 12; from one to two months, 21; two to three months, 15; three to six months, 54; over six months, 189. Only four cases were stated to be receiving a mixture of natural and artificial feeding at the same time, while 37 cases were artificially fed entirely from birth. The mothers in these cases were employed thus: Industrial work, 5; hawkers and miscellaneous, 7; charing and domestic work, 13; housework, 307. 320 mothers nursed their own children and four put their children out to nurse. All the mothers except two are stated to have resumed work within four weeks of confinement.

The information received with regard to the sizes of houses, rentals, weekly income, was as follows:—

TABLE I.

SHOWING NUMBER OF HOUSEHOLDS AND ROOMS IN OCCUPATION.

No. of Rooms	1	2	3	4	5	6	7	8	9	10	No information.	Totals.
No. of Households	2	11	63	176	75	33	3	1	1	2	16	383

TABLE II.

RENTALS.

Rentals	2/6	3/-	3/6	4/-	4/6	4/9	5/-	5/3	5/6	5/9	6/-	6/3	6/6
No. of Households	1	4	3	9	10	1	32	9	78	10	78	4	28

Rentals	7/-	7/6	7/9	8/-	8/6	9/-	9/6	10/-	15/-	No information.	Total.
No. of Households	15	60	1	6	1	1	3	1	1	27	383

TABLE III.

INCOMES.

Incomes under	10/-	15/-	20/-	25/-	30/-	35/-	40/-	45/-	50/-	55/-	No information.	Total.
Households ...	1	2	18	118	92	72	27	25	3	3	22	383

The average weekly income was calculated to be £1 7s 2d.

The results of the enquiry are not altogether satisfactory, showing as they do an infant mortality of 135 per 1,000 births for mothers not industrially employed. It might reasonably be expected that a large proportion of these mothers would be able to devote a considerable amount of their time to their babies, more than would be the case in industrial towns, and therefore the infant mortality should be comparatively low. One reason probably for this high mortality is that mothers work very hard for a few months in the summer time, at such work as charing, washing up at restaurant kitchens, etc. The work while it lasts is comparatively remunerative, but it is precarious in duration. The average weekly income (£1 7s. 2d.) indicates that in most cases poverty alone is not the cause of the infant mortality. Another striking point is that of the 51 infant deaths 24 or 46 per cent. were breast-fed entirely.

I have the honour to be Sir,

Your obedient Servant,

E. W. REES JONES,

Medical Officer of Health.

9th November, 1910.

MIDWIVES' ACT, 1902.

Total on Register 1st January, 1910…………	26
No. who sent in Form VIII. of intention to practise ………………………………	25
No. of new midwives admitted to Roll during 1910………………………………	5
No. of midwives who died during 1910 ……	1
Changes of address reported to Central Midwives' Board ……………………	4
Notifications received from midwives :—	
Sending for medical help………………	4
Still Births ………………………	21
Death of child………………………	—
Visits paid by the Medical Officer of Health or Health Visitor…………………	37

Of the 26 midwives on the roll on the 1st January, 1910, 17 are certified, because they were in practice for one year prior to the passing of the Act, 3 have the L.O.S. certificate, 3 have the St. Mary's Hospital, Manchester, certificate, 1 has a certificate from the Ladies' Charity Lying-in Hospital, Liverpool, and 2 the C.M.B. certificate.

Two cases of puerperal fever occurred in the practice of midwives during 1910. The midwives were temporarily suspended until their bags, &c., were disinfected.

From and after the 1st April, 1910, no woman, unless a Certified Midwife under the Midwives Act was allowed habitually and for gain to attend women in childbirth. Several of the monthly nurses have therefore been discontinued from practice unless they were working directly under the supervision of a medical man. It was anticipated that in many districts this would lead to a shortage of midwives but this has not proved to be the case in Blackpool. The fees charged by midwives vary between 10s. 6d. and £2 2s., but the majority of them are under 15s.

Thirty-seven visits were paid by the Health Visitor during 1910 in order to inspect bags and registers.

EDUCATION (ADMINISTRATIVE PROVISIONS) ACT, 1907.

The amended scheme of medical inspection authorised by the Education Committee, which I gave in detail in my last Report has been in operation during the year. I have prepared a detailed report on the subject and submitted the same to the Education Committee. I therefore do not propose to make any further reference to the subject here.

With regard to the sanitary condition of the schools I have called the attention of the Education Committee and the Managers of the Schools to the following conditions :—

(1.)—REVOE SCHOOL.—

Lavatory basins out of order. Several desks too small, especially in Class IIa.

(2).—DEVONSHIRE ROAD SCHOOL.—

Manual Room (Class II.) badly lighted, and the stove smokes and is unusable.

The floor and channel of the boys' urinal have no proper fall (I understand this will be altered when the new Infants' department is used.)

Classroom Standard IV. Girls, inlet under the radiator is out of order.

(3).—WATERLOO ROAD SCHOOL.—

Playground is defective in places, especially at the approaches to the Lavatories.

I would suggest that in order to increase the ventilation of the cloakrooms two upper panels of the doors should be replaced by wire net work.

(4.)—THAMES ROAD SCHOOL.—

The general cleansing is not up to the standard.

I would suggest that the blinds on the windows of Class-room 2b infants, should be taken down.

(5.)—ASHBURTON ROAD SCHOOL.—

The playground is defective in a few places and especially at the entrance to the Lavatories. The children have no option but to walk through a pool of water which collects there.

It would greatly improve the ventilation of the School if some of the windows were made to open at the bottom.

(6.)—ST. JOHN'S SCHOOL.—

The cleansing of this School generally is in a very backward condition, and the passage used as the boys' cloakroom requires distempering.

(7.)—CHRIST CHURCH SCHOOL.—

There is a slight defect in the drains. There are also other defects in this School about which I have written to the Managers. One of these defects is the very bad condition of the playground, and I suggest that the drain should be repaired when the playground is being resurfaced.

PARTICULARS OF DEFECTS REFERRED TO ABOVE.

The refuse receptacle is unsatisfactory, and should be abolished and a proper galvanised iron bin with airtight cover substituted.

The playground is very defective, in fact, so much so as to be a nuisance.

The closets are unsatisfactory in construction. They should be replaced by individual pedestal water-closets, with a flushing tank to each closet. The closet buildings also require more light and ventilation, In some of the rooms the lighting is defective, and this could be greatly obviated by substituting plain glass for the existing obscured panes.

The windows should be made to open in the rooms occupied by Standard I. and II. Girls.

(8.)—VICTORIA SCHOOL.—

An additional wood and glass partition in the large room would be a great advantage. A wire guard is required to the cellar window. The upper cloakroom window will not open, and it would greatly improve the ventilation of the cloakroom and light the passage if the upper panels of the door were replaced by open wire work.

(9.)—BAINES SCHOOL.—

This School is very draughty, and I would strongly advise some form of draught preventers at the bottom of the doors.

A flushing tap is required to the Urinal.

(10.)—ST. CUTHBERT'S.—

The waterclosets should be kept better cleansed, and the seats repaired where defective.

The School generally is cold.

The Infants' classroom is too dark. This could be greatly obviated by substituting clear glass for the present window panes.

The fireplace in the boys' cloakroom requires repairing in order that this room may be used for the purpose of Medical Inspection.

(11)—TALBOT ROAD SCHOOL—

The yard surface is defective in places, and the w.c's insufficiently ventilated.

The Director of Education has informed me that the Committee intend carrying out my suggestions during the summer holidays, and with regard to the other schools where I have not been assured that the defects will be remedied, I shall take action under the Public Health Acts.

With regard to the exclusion of infected scholars and contacts with same, I have prepared the following pamphlet and sent a copy to each of the schools :—

INSTRUCTIONS OF THE MEDICAL OFFICER OF HEALTH WITH REGARD TO INFECTIOUS DISEASE AND SCHOOL ATTENDANCE.

Persons suffering from, or in contact with, Infectious Disease are to be excluded from School until the expiration of the periods mentioned below :—

SCARLET FEVER.

1.—Patients :—	(*a*) Hospital Cases.	Two weeks after discharge.
	(*b*) Home Cases.	Two weeks after disinfection.
2.—Contacts :—	(*a*) Hospital Cases.	Two weeks after removal to Hospital.
	(*b*) Home Cases.	Two weeks after disinfection.

DIPHTHERIA.

1.—Patients :—	(*a*) Hospital Cases.	Four weeks after discharge.
	(*b*) Home Cases.	Four weeks after disinfection.
2.—Contacts :—	(*a*) Hospital Cases.	Two weeks after removal to Hospital.
	(*b*) Home Cases.	Four weeks after disinfection.

ENTERIC FEVER AND ERYSIPELAS.

Contacts need not be excluded from School.

MEASLES.

1.—Patients :—Four weeks from onset.

2.—Contacts :—(*a*) Infant Scholars. Three weeks from onset of last case.

(*b*) Other Scholars :—

I.—If had Measles. Not to be excluded.

II.—If not had Measles. Three weeks after onset of last case .

WHOOPING COUGH.

Patients :—Six weeks, or as long as cough continues.

Contacts :—(*a*) Infant Scholars. Same period as patient.

(*b*) Other Scholars :—

I.—If had whooping cough. Not to be excluded.

II.—If not had whooping cough. Same period as patient.

MUMPS.

Patients :—Three weeks.

Contacts :—Not to be excluded.

CHICKEN POX.

Patients :—Three weeks, or until all scabs have disappeared.

Contacts :—(*a*) Infant Scholars. Same period as patients.

(*b*) Other Scholars. Not to be excluded.

The above periods are liable to alteration in individual cases, on instructions from the Medical Officer of Health.

E. W. REES JONES, M.D., D.P.H.,
Medical Officer of Health and
School Medical Officer, Blackpool.

FACTORY AND WORKSHOP ACT, 1901.

In accordance with the provisions of Section 132 of the Act, every Medical Officer of Health is required in his Annual Report to "report specifically on the administration of this Act in workshops and workplaces, and he shall send a copy of his Annual Report, or as much of it as deals with this subject, to the Secretary of State."

The administration of the Act as regards factories comes more under the Government Factory Inspector, which accounts for the fact that only 16 visits have been paid to factories by our Inspectors during the year. If the Government Inspector on his visit to a factory notices any deficiences as to sanitary accommodation, &c., he sends word to the Medical Officer of Health, and then our Inspectors take the matter up.

There are 175 factories registered in the Borough, and through the courtesy of Mr. Seymour, the Inspector of Factories for this district, I am able to give the following classification :—

Building and Furnishing Trades:		
Joinery, Sawmill, and Cabinet Works ……	25	
Stone Works and Mortar Mills …………………	5	
Brick Works …………	4	
		34
		34
Forward ……..		34
Engineering:		
Engineering Works and Smithies ……………	8	
Cycle and Motor Car Works ………………	6	
Toolmaking …………	1	
Rolling Stock …………	1	
		16
		50

Forward.........		50
Coachbuilding and Wheelwrights	6	
		—6

Preparation of Food, &c.:

Bake-houses	19	
Sausage Works	6	
Sugar Boiling	4	
Ice Cream Making	2	
Dairies	1	
Aerated Water Manufacturing, Beer Bottling, and Brewing	19	
Other Provisions.........	1	
		—52

Wearing Apparel:

Dress, Millinery and Tailoring	1	
Bootmaking&repairing	10	
		—11

Letterpress Printing:

Letterpress Printing and Bookbinding	13	
		—13
		132

Forward.........		132

Lighting:

Electricity Generating	9	
Gas Works	1	
		—10

Laundries:

Laundries and Carpet-Beating Works	11	
Bedding, &c., Cleaning Works	1	
		—12

Miscellaneous:

Art Needlework	1	
Electro-plating	2	
Photograph Printing...	1	
Toy Making...............	1	
Wire mattresses	2	
Picture Frame Making	1	
Firewood Cutting	4	
Cigar Making	2	
Provender & Corn Mills	6	
Watch repairs	1	
		—21
Total............		175

As regards Workshops, there are 532 in all registered in the Borough, classified as follows :—

Clothing, &c.:

Milliners	31	
Tailors	41	
*Dress	93	
Boots and Clogs	84	
Underclothing and baby linen	4	
Hosiery	2	
		255

Food and Drink :

Bakers & confectioners	150	
Sugar Boiling	5	
Beer Bottling	2	
Plucking place	1	
Pickle works	1	
		159

Building Trades, &c.:

Plumbing and Painting	18	
Joiners	16	
		34

Furniture :

Cabinetmaking & upholstery	21	
Wire mattresses	1	
French Polisher	1	
		23
		471

Forward		471

Conveyances, &c.:

Wheelwrights & Coach Builders	2	
Saddlery	5	
Black and whitesmiths	13	
Cycle repairs	4	
Gunsmith	1	
		25

Jewellery, &c.:

Watch repairing and Jewellery	6	
Photo mounting and Picture-frame making	14	
		20

Other Trades :

Hand Laundries	5	
Cigar manufacturers	2	
Brush manufacturer	1	
Printers & Bookbinders	3	
Electrical Appliances	1	
Basket manufacturer	1	
Monumental Mason	1	
Venetian Blind manufacturer	1	
Motor Garage	1	
		16
Total		532

**NOTE.—When Millinery and Dress are made on the same premises, they are classified under "Dress."*

There were crossed off the Register during the year :—

Basket Manufacturer	1
Hosiery	2
Underclothing	3
Bakers and Confectioners	14
Printer	1
Milliners	9
Black and Whitesmiths	4
Boots and Clogs	13
Cycle Repairs	2
Dressmakers	37
Upholsterers	2
Tailors	17
Plumbers	2
Joiners	3
Brush Manufacturer	1
Sugar Boiling	1
Fibrous Plasterer	1
Photo Mounting and Picture Frame Making	4
Watch Repairs	1
Saddlery	1

The following new Workshops were added :—

Milliners	2
Dressmakers	9
Tailors	10
Joiner	1
Painters	3
Boots and Clogs	9
Bakers and Confectioners	3
Cabinet-making and Upholstering	5

I now submit, in the official form required by the Home Office, the following report as to the proceedings which have been taken in Blackpool in connection with the supervision of the Factories, Workshops, and Workplaces of the Borough in regard to those matters placed by the Act under the control of the local sanitary authority.

FACTORIES, WORKSHOPS, LAUNDRIES, WORKPLACES, AND HOMEWORK.

1.—INSPECTION.

INCLUDING INSPECTIONS MADE BY SANITARY INSPECTORS OR INSPECTORS OF NUISANCES.

PREMISES.	Number of		
	Inspections.	Written Notices.	Prosecutions.
FACTORIES .... (Including Factory Laundries)	16	1	—
WORKSHOPS .... (Including Workshop Laundries)	689	41	—
WORKPLACES .... (Other than Outworkers' premises)	296	—	—
TOTAL......................	1,001	42	—

2.—DEFECTS FOUND.

PARTICULARS.	Number of Defects.			Number of Prosecutions.
	Found.	Remedied.	Referred to H.M. Inspector.	
Nuisances under the Public Health Acts:—*				
Want of cleanliness	39	37	...	...
Want of ventilation	1	1	...	...
Overcrowding	1	1	...	...
Want of draining of floors	...	...	...	...
Other nuisances	26	25	...	...
†Sanitary accommodation ... insufficient	3	2	...	...
†Sanitary accommodation ... unsuitable or defective	...	...	...	...
†Sanitary accommodation ... not separate for sexes	2	2	...	...
Offences under the Factory and Workshop Act:—				
Illegal occupation of underground bakehouse (s. 101)	...	...	...	...
Breach of special sanitary requirements for bakehouses (ss. 97 to 100)	71	71	...	...
Other offences	...	...	...	...
(Excluding offences relating to Outwork which are included in Part 3 of this report).				
TOTAL	143	139	...	...

* Including those specified in Sections 2, 3, 7, and 8 of the Factory and Workshop Act as remediable under the Public Health Acts.

† Section 22 Public Health Acts Amendment Act, 1890, has been adopted.

3.—HOME WORK.

NATURE OF WORK. (1)	OUTWORKERS' LISTS, SECTION 107. Lists received from Employers. Twice in the year. Lists. (2)	Twice in the year. Outworkers. Con-tractors. (3)	Twice in the year. Outworkers. Workmen. (4)	Once in the year. Lists. (5)	Once in the year. Outworkers. Con-tractors. (6)	Once in the year. Outworkers. Workmen. (7)	Numbers of Addresses of Outworkers received from other Councils. (8)	Numbers of Addresses of Outworkers forwarded to other Councils. (9)	Prosecutions. Failing to keep or permit inspection of lists (10)	Prosecutions. Failing to send lists. (11)	Number of Inspections of Outworkers' premises (12)	OUTWORK IN UNWHOLESOME PREMISES. SECTION 108. Instances. (13)	Notices served (14)	Prosecutions. (15)	OUTWORK IN INFECTED PREMISES SECTIONS 109, 110. Instances. (16)	Orders made (s. 110). (17)	Prosecutions (sections 109, 110) (18)
Wearing Apparel:—																	
(1) Making, &c.	52	6	88	5	1	5	4	11	—	—	85	—	—	—	—	—	—
(2) Cleaning and Washing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Lace, lace curtains and nets	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Artificial flowers	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Nets, other than wire nets	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tents, Sacks ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Furniture and Upholstery	—	—	—	1	—	1	—	—	—	—	1	—	—	—	—	—	—
Fur pulling	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Feather sorting	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Umbrellas, &c.	2	—	4	1	—	1	—	2	—	—	4	—	—	—	—	—	—
Carding, &c., of buttons, &c. ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Paper Bags and Boxes	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Brush Making, Basket Making	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Racket and Tennis Balls	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Stuffed Toys	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
File Making	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Electro Plate	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cables and Chains	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Anchors and Grapnels	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cart Gear	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Locks, Latches, and Keys	2	—	2	—	—	—	—	—	—	—	2	—	—	—	—	—	—
Pea picking	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Block cutting	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
TOTAL	56	6	94	7	1	7	4	13	—	—	92	—	—	—	—	—	—

4.—REGISTERED WORKSHOPS.

Workshops on Register (s. 131 at end of 1910).		Number.
Important classes of workshops, such as workshop bakehouses, may be enumerated here.	Making of wearing apparel	255
	Workshop Bakehouses	150
	Preparation of other Foods, &c.	9
	Building Trades	34
	Furniture Making, &c.	23
	Conveyances, &c.	25
	Other Trades	36
	Total number of workshops on Register	532

5.—OTHER MATTERS.

CLASS.		Number.
Matters notified to H.M. Inspector of Factories :—		
Failure to affix Abstract of the Factory and Workshop Act (S. 133)		5
Action taken in matters referred by H.M. Inspector as remediable under the Public Health Acts, but not under the Factory and Workshop Act (s. 5)	Notified by H.M. Inspector	16
	Reports (of action taken) sent to H.M. Inspector	15
Other		...
Underground Bakehouses (s. 101) :—		
Certificates granted during the year		...
In use at the end of the year		6
New Workshops reported to H.M. Inspector		10

The number of visits under these Acts amounts to the large total of 1,001. The 296 visits paid to "Workplaces" comprise 115 visits paid to Restaurant Kitchens and 181 to Ice Cream Workshops, but do not include 789 visits to Slaughter Houses which should probably be considered workplaces also, which would bring the number of visits to workplaces to 1,790.

One hundred and forty-three defects under this Act were detected during the year, and 139 of them were remedied; 42 written notices were issued, the remainder of the work being done on verbal instructions.

The Workshops in Blackpool consist only of those which are necessary to a community of 60,000 people, *e.g.*, there are 31 Milliners, 41 Tailors, 93 Dressmakers, 84 Bootmakers, 150 Bakers and Confectioners, 18 Plumbers, 16 Joiners, 21 Cabinetmakers, &c. There is no staple industry apart from these.

The bakehouses were kept well under observation, and 384 visits were paid to them. Sixty-five verbal notices and 22 written notices were served relating to some sanitary points and these were attended to during the year.

With regard to Outworkers' lists, circular letters have been sent out at the beginning of February and August asking for the lists, and these have been promptly sent in. It is not obligatory upon the Department to ask specially for the lists, and persons failing to forward their lists are liable to a penalty; yet the system adopted for the past two years has worked so satisfactorily that I propose continuing it in future years.

The conditions of the premises of the Outworkers were satisfactory from a sanitary point of view. These premises are kept well under observation, and I have instructed the Inspectors to visit each Outworker twice a year.

SHOP HOURS ACTS, 1892, 1893, AND 1895.

These Acts require that no young person (i.e., a person under the age of 18 years) shall lawfully be employed in a shop for a longer period than 74 hours, including meal times, in any one week, and that a notice to this effect must be exhibited in a conspicuous place in any shop where a young person is employed. The employer is liable to a fine not exceeding £1 for each young person employed in contravention of these Acts, and to a fine not exceeding 40s. for failure to exhibit the notice.

The working of these Acts is in Blackpool entrusted to the Department of the Medical Officer of Health.

Twenty-four visits were paid to various shops, and in 3 instances there was a failure to exhibit the notice. Prosecutions were instituted in each case, and fines of 2s. 6d. and costs were inflicted.

EMPLOYMENT OF CHILDREN ACT, 1903.

This Act requires that :

A child shall not be employed between the hours of nine in the evening and six in the morning ;

A child under the age of eleven years shall not be employed in street trading;

No child who is employed half-time under the Factory and Workshop Act, 1901, shall be employed in any other occupation;

A child shall not be employed to lift, carry, or move anything so heavy as to be likely to cause injury to the child;

A child shall not be employed in any occupation likely to be injurious to his life, limb, health, or education, regard being had to his physical condition.

If the local authority send to the employer of any child a certificate signed by a registered medical practitioner that the lifting, carrying, or moving of any specified weight is likely to cause injury to the child, or that any specified occupation is likely to be injurious to the life, limb, health, or education of the child, the certificate shall be admissable as evidence in any subsequent proceedings against the employer in respect of the employment of the child, a child being (unless otherwise mentioned) a person under the age of 14 years.

Eighteen visits were paid under this Act, and in six instances contraventions were found. Prosecutions were instituted, and in all cases fines of 5/- and costs were inflicted. In one instance a child was found working at 10.10 p.m., and in two cases as late as 10.30 p.m.

THE BLACKPOOL CLOSING ORDER, 1908.
BARBERS' AND HAIRDRESSERS' SHOPS.

This order, made under powers granted by the Shop Hours Act, 1904, states that from the 1st day of November, to the 30th day of April, both days inclusive, Barbers' and Hairdressers' Shops shall close at the following hours :—

Mondays and Thursdays	8 p.m.
Tuesdays and Fridays	8.30 p.m.
Wednesdays	1 p.m.
Saturdays	10.0 p.m.

The following dates are exempted :—December 18th, to 24th, both days inclusive, and from Wednesday previous to Easter Day to the Wednesday following Easter Day, both days inclusive.

One complaint of a breach of this Order was received during the year.

The Health Committee instructed me to communicate with all the Hairdressers in the town calling their attention to the provisions of this Order and the following is a copy of the circular I addressed to them :—

Public Health Office,
February, 1910

BLACKPOOL (BARBERS' AND HAIRDRESSERS' SHOPS)
CLOSING ORDER, 1908.

Dear Sir,—

Owing to complaints having been made to the Health Committee that the above Order is not being strictly observed, the Committee have decided to circularise all the Hairdressers calling attention to the Order.

By the provisions of the Order all Barbers' and Hairdressers' Shops within the Borough of Blackpool must be closed for serving customers on the several days of the week, at and after the following hours namely:—

Monday	8. 0	o'clock p.m.
Tuesday	8.30	do.
Wednesday	1. 0	do.
Thursday	8. 0	do.
Friday	8.30	do.
Saturday	10. 0	do.

I give below the words of certain clauses of the Order, made under the Shop Hours Act, 1904.

EXTRACTS FROM THE BARBERS' AND HAIRDRESSERS' SHOPS CLOSING ORDER, 1908.

The period during which this Order shall be in force in each year shall be from the 1st day of November to the 30th day of April, during the continuance thereof, both days inclusive.

The following dates in each and every year shall be exempted from the operation of the Order, viz.: December 18th to 24th, both days inclusive; December 31st; and from the Wednesday previous to Easter Day to the Wednesday following Easter Day both days inclusive.

Where any trade or business other than the business of a barber or hairdresser is carried on at any premises or place in which the business of a barber or hairdresser is carried on, such premises or place may only be kept open for the purposes of such other trade or business after the closing hours fixed by this Order, provided that there shall be affixed during all the time that the said premises or place may so remain open for such other trade or business, in some conspicuous place on the exterior and in the interior of the premises, a notice in letters of such size that they shall be clearly legible in the words following, viz.:—

> SHOP HOURS ACT, 1904.
>
> These premises are NOT now OPEN for any of the purposes of a BARBER'S OR HAIRDRESSER'S SHOP.

After the issue of this notice any person contravening the Order will be liable to summary prosecution without further warning.

Yours faithfully,

E. W. REES JONES,
Medical Officer of Health.

Ninety-five copies of this circular were served.

SUPERVISION OF FOOD SUPPLIES.

This has been carried out during the year by Inspector Newby, under the direction and supervision of the Medical Officer of Health.

The following food places exist in the Borough :—

	1909	1910
Butchers' shops	108	110
Frozen Meat Shops	29	30
Fish and Chip shops	91	94
Fish Dealers (mostly also selling fruit and game)	45	46
Provision shops (mostly also selling fruit)	243	244
Provision shops (selling also Butcher's meat)	24	25
Fruit shops	72	74
Restaurants where food is cooked	59	60
Tea Rooms	15	15
Oyster shops	11	11
Confectioners' and Sweets Shops	219	222
Fruit Shop (selling also Butcher's meat)		1
	916	932

It will be observed that the 1910 figure is slightly in excess of that of 1909.

During certain parts of the year the above list is considerably augmented by meat stalls, ice cream barrows, fish carts, &c., but it is not practicable to keep any record of them.

As in previous years, and as I trust will continue to be the case, the inspection of food has been one of the most important branches of the work of the Health Department, and I am pleased to be able to record that the efficiency and harmony of the work has been greatly aided by the co-operation of the food vendors in the town. It is greatly to be hoped that this good feeling will continue to exist.

Visits have been paid as follows :—

	1909		1910
Milkshops and Dairies	181	...	280
Cowsheds in the Borough	197	...	203
Cowsheds out of the Borough	14	...	3
Ice Cream Stalls	131	...	65
Ice Cream Workshops	166	...	181
Public Slaughter-houses	284	...	285
Other Slaughter-houses in the Borough	543	...	504
Other Slaughter-houses out of the Borough	33	...	33
Butchers' Shops	2,287	...	1,745
Other Shops	1,569	...	1,781
Restaurant Kitchens	156	...	115
	5,561	...	5,195

In all cases where vendors of food have any doubt as to the quality of any article they are invited to send to the Health Office, when the Medical Officer of Health or Food Inspector will at once call and pass an opinion on the article.

During the year the following articles were destroyed as unfit for food (not including meat from the Public Slaughter-houses):—

439	lbs. of Halibut.
112	lbs. of Plaice.
280	lbs. of Herring.
77	lbs. of Garnet.
42	lbs. of Hake.
28	lbs. of Prawns.
19	Finnon Haddock.
45	dozen Frozen Sheep Kidneys.
1	Goose.
1	Lamb (28 lbs.).
2	Bags of Mussels.

It was not necessary to obtain a Magistrate's Order for destruction or institute legal proceedings in respect of any of the above articles.

SLAUGHTER-HOUSES AND THE INSPECTION OF MEAT.

At the commencement of the year there were in the Borough the Corporation abattoirs, and two other private slaughter-houses.

The system of letting private premises at the abattoirs greatly facilitates the inspection of meat, and also obviates the occurrence of the nuisance inseperably attached to such buildings when scattered over the town.

Eight of the private premises were let to the following: Mr. J. Cocker, Mr. T. Holroyd, Messrs. Holt and Hull, Messrs. Valiant and Rainford, Messrs. Garsden and R. Hull, Mr. H. O. Laycock, the Argenta Meat Co., and the Cooperative Society. Other premises were let for hide, skin, and fat warehouses, for gut scraping, for tripe boiling, and for blood drying.

The public slaughter-houses at the abattoirs were regularly used by a considerable number of butchers during the year.

The following animals were slaughtered at the abattoirs:—

	1909	1910
Cows	90	130
Heifers	2,304	2,318
Bullocks	556	547
Bulls	9	21
Calves	797	878
Sheep	37,144	38,917
Pigs	1,496	1,266
	42,396	44,077

These figures are in excess of those for 1909.

There were killed at the private slaughter-houses (other than the abattoirs) in and out of the Borough, and brought into the Borough for sale:—

	1909	1910
Heifers	862	832
Bullocks	208	156
Calves	1,050	996
Sheep	12,458	11,774
Pigs	100	233

The following were surrendered and destroyed during 1910, from the Corporation abattoirs :—

(*a*) Tuberculosis:
  3 Cows and viscera (1,928 lbs.).
  1 Heifer (410 lbs.).
  2 Pigs and viscera (308 lbs.).
  Viscera of 3 Heifers.
  Viscera of 3 Cows.
  Viscera of 4 Bullocks.
  Head and Viscera of one Pig.

(*b*) Abscesses:
  4 Pigs' heads.

(*c*) Suffocated:—
  1 Sheep (36 lbs.).

(*d*) Found Dead in Field:
  2 Sheep (80 lbs.).
  2 Lambs (94 lbs.).

(*e*) Inflammation:
  1 Calf (111 lbs.).
  2 Forequarters of Lamb (24 lbs.).

(*f*) Jaundice:
  1 Pig (130 lbs.).

The following were surrendered and destroyed from other private slaughter-houses :—

(1) Within the Borough:
  Viscera of one Heifer. Slightly tuberculous.

(2) Outside the Borough:
  1 Cow and Viscera (760 lbs.). Tuberculous.

One case of Anthrax came to my notice during the year, viz.: a lamb (34lbs.) which was found dead in a field in Newton Drive. The matter was reported to the Police in the ordinary way and the carcase and skin were destroyed under strict supervision.

The bloods of 2 sheep and 2 other lambs were examined but were not found to contain any anthrax bacilli.

THE MILK SUPPLY.

All available means of securing a wholesome milk supply have been persevered in during the year. I make no apology for giving this subject such prominence in my Reports, for considering the importance of the article of milk in the daily diet no effort should be spared to ensure that it is supplied to the consumers in as clean a condition as given by the cow. I cannot report much improvement during the year and I have received numerous complaints of milk delivered at the doors containing sediment. Possibly some of this sediment consists of dust which has blown into the milk during delivery and perhaps all of it is not avoidable, yet a large percentage of it is matter which has been introduced into the milk during the process of milking and is entirely avoidable. The bodies of the cows should be kept clean and free from caked manure, the udders should be cleaned on each occasion before milking, and the milkers should have thoroughly clean hands and clean overalls.

The following is a list of Milksellers in the Borough:—

Dairies selling by retail	12
Provision dealers selling by retail	56
Butchers ,, ,,	3
Persons meeting farmers' carts and delivering milk direct, not taking it home	18
Tea rooms and sweets shops selling in glasses as refreshments when asked for	75
Dining rooms selling milk in glasses when asked for	10
Selling sterilised milk	2
	176

This number is an increase of 2 on the 1909 figure.

No. of Cowsheds in the Borough during 1910, the occupiers of which sold milk during the year	44
Farmers outside the Borough bringing milk into the Borough	163
Ice Cream dealers	130

During 1910, as seen on page 120, Mr. Newby paid in all 203 visits to cowsheds within the Borough, 3 to cowsheds outside the Borough, 280 to milkshops and dairies, 246 to ice cream stalls and workplaces, and 115 to restaurant kitchens.

Fifty-nine milk dealers, and 36 ice cream dealers applied for registration during the year.

Fifty-five persons have been cautioned for selling milk or ice cream without being registered, and one letter was sent where a cowshed required limewashing. These were attended to at once.

One sample of milk was submitted for analysis, and reported to contain a large amount of blood. The farm from which this milk came was at once visited by the Food Inspector, and the cow which gave the milk was separated from the herd and the milk withheld from consumption.

I visited all the cowsheds in the Borough during the year.

SALE OF FOOD AND DRUGS ACTS.

Mr. Thomas Sanderson, the Chief Sanitary Inspector, is the Sampling Officer under these Acts.

One hundred and ninety Samples were taken during the year 1910, and were composed of the following:—

Informal Samples Number			Nature of Sample.	Formal Samples. Number		
Taken.	Not Genuine.	Reference Numbers.		Taken.	Not Genuine.	Reference Numbers.
1	—		Ammoniated Tincture of Quinine	—	—	
—	—		Borax	1	—	
5	—		Butter	30	—	
—	—		Cheese	1	—	
1	—		Chlorodyne	—	—	
—	—		Coffee	15	—	
—	—		Cornflour	1	—	
2	—		Cream	9	6	787, 826, 835, 867, 901, 924.
6	—		Flour	—	—	
—	—		Ginger	1	—	
1	—		Glycerine	—	—	
—	—		Ham (Boiled)	2	2	821, 895.
4	—		Lard	4	—	
—	—		Lobster Paste	1	1	851
—	—		Margarine	1	—	
—	—		Meat (Potted)	1	—	
2	1	964	Medical Prescription	—	—	
—	—		Milk (Separated)	1	—	
6	—		Milk	59	14	796, 797, 798, 818, 831, 853, 854, 856, 876, 877, 878, 880, 881, 959.
—	—		Mustard	3	—	
—	—		Pepper (White)	9	—	
—	—		Rice	1	—	
—	—		Sausage	2	—	
1	—		Seidlitz Powder	—	—	
—	—		Shrimps (Potted)	8	4	819, 850, 869, 897.
—	—		Shrimps (Picked)	1	—	
—	—		Shrimps	1	1	868
2	—		Suet (Chopped)	—	—	
1	—		Sweets	1	—	
—	—		Syrup (Golden)	1	—	
1	—		Tartaric Acid	—	—	
—	—		Tea	1	—	
—	—		Whiskey (Scotch)	2	—	
33	1			157	28	

MILKS.

SAMPLE No. 796.—Fat, 3.20 per cent. ; Solids not fat, 8.08 per cent. ; Total Solids, 11.28 per cent., 4 per cent. of added water. This was a sample from a dairy. A warning letter was sent.

SAMPLE No. 797.—Fat, 3.3 per cent. ; Solids not fat, 8.4 per cent. ; Total Solids, 11.7 per cent. Slightly deficient in non fatty solids. A warning letter was sent. This sample was bought from a grocer's shop where milk was sold.

SAMPLE No. 798.—Fat, 2.85 per cent.; Solids not fat, 8.6 per cent.; Total Solids, 11.45 per cent. Slightly deficient in non fatty solids. A warning letter was sent.

SAMPLE No. 818.—Fat, 3.07 per cent.; Solids not fat, 7.78 per cent.; Total Solids, 10.85 per cent. The Analyst reported that this sample contained 8 per cent. of added water. The vendor was prosecuted and was fined £5 and £1-12-0 costs.

SAMPLE No. 831.—Fat, 2.85 per cent.; Solids not fat, 8.25 per cent.; Total Solids, 11.10 per cent. This sample was certified by the Analyst to be slightly watered. This was a sample of morning milk. No further action was taken with regard to this sample but the vendor has been kept under observation.

SAMPLE No. 853.—Fat, 2.68 per cent.; Solids not fat, 9.02 per cent.; Total Solids, 11.7 per cent. Certified to be deficient in milk fat. The sample was of morning milk.

The farm was visited by the Sampling Inspector and it was found that the cattle were milked at 5 a.m. and 1 p.m., and the opinion was formed that the deficiency was due to the unequal intervals between milking. A warning letter was sent.

Sample No. 854.—Fat, 2.54 per cent.; Solids not fat, 9.22 per cent.; Total Solids, 11.76 per cent. Certified to be deficient in milk fat. This farm was visited by the Sampling Inspector who found that there were 20 young cows on good pasture. The cows were milked at 5.30 a.m. and 1.30 p.m. The sample was of morning milk and it was decided that the deficiency in fat was due to the unequal periods between milking. A warning letter was sent.

Sample No. 856.—Fat, 2.60 per cent.; Solids not fat, 8.29 per cent.; Total Solids, 10.89 per cent. Certified to be deficient in cream and probably slightly watered also. The farm was visited by the Sampling Inspector but nothing of any note was observed. The vendor of this sample had been prosecuted previously. A warning letter was the only action taken with regard to this sample, but another sample was taken subsequently which gave a good analysis.

Sample No. 876.—Fat, 2.61 per cent.; Solids not fat, 9.05 per cent.; Total Solids, 11.66 per cent. Certified to be deficient in cream. The farm was visited by the Sampling Inspector who found that there were 18 cows kept, 11 of which were milking. The stock was in good condition. Milking was carried out at 5.15 a.m. and 1 p.m. These cattle were grass fed and on good pasture. This sample was one of morning milk. A warning letter was sent.

Sample No. 877.—Fat, 2.80 per cent.; Solids not fat, 9.15 per cent.; Total Solids, 11.95 per cent. Certified to be slightly deficient in cream. The farm was visited by the Sampling Inspector who found the cattle were in good condition and that the milking was carried out at 5 a.m. and 2 p.m. This was a sample of morning milk. A warning letter was sent.

Sample No. 878.—Fat, 2.24 per cent.; Solids not fat, 8.99 per cent.; Total Solids, 11.23 per cent. Certified to be deprived of about one fourth of its cream. The farm was visited by the Sampling Inspector who found that there were 16 cows in fair condition, provendered twice per day on brewers' grain and also out at grass. Milking took place at 5.50 a.m. and 1 p.m. This was a sample of morning milk. Three samples were taken on the farm by the Inspector, one of which was genuine while the other two gave the following analysis (880 and 881).

Sample No. 880.—(unofficial) Fat, 2.80 per cent; Solids not fat, 8.70 per cent. ; Total Solids 11.5 per cent.

Sample No. 881.—Fat, 2.65 per cent. ; Solids not fat 8.65 per cent. ; Total Solids, 11.30 per cent. These cows were milked in the presence of the Inspector and he observed that most of the fore milk was liable to get into one can. This was pointed out to the farmer who promised to alter his procedure.

Sample No. 959.—Fat 2.80 per cent. ; Solids not fat, 8.94 per cent. ; Total Solids 11.74 per cent. Deprived of at least six per cent. of its cream. This sample was purchased from a Confectioner's shop, and it was thought probable that the deficiency was due to the fact that the milk was not thoroughly stirred before each purchase. Samples had previously been taken from the vendor of this sample and had been found genuine. A warning letter was sent.

The opinions formed in previous years have been verified by the results of analysis of this year's samples, viz., that morning milk was liable to be poorer in cream than evening milk owing to the fact that milking for the latter had to take place generally about one p.m. in order that the milk may be in the town in time for evening tea. Many samples were taken of evening milk and were, without exception, found to contain at least three per cent of fat.

CREAM.

Sample No. 787.—Certified to contain 0.29 per cent. boracic acid and was so labelled. A letter was sent to the vendor and no further action was taken.

Sample No. 826.—Certified to contain 0.28 per cent. boracic acid, and not labelled. No action was taken.

Sample No. 835.—Certified to contain 0.36 per cent. boracic acid and was so labelled. No action was taken.

Sample No. 867.—Certified to contain 0.35 per cent. boracic acid and labelled as not exceeding half of one per cent. No action was taken.

Sample No. 901.—Certified to contain 0.4 per cent. boracic acid and labelled as containing a small quantity of boron preservative. No action was taken.

Sample No. 924.—Certified to contain 0.37 per cent. boracic acid and so labelled. No action was taken.

It is satisfactory to observe that there has not been an excessive quantity of boracic acid in any one of the samples taken, and that the large majority were labelled as containing preservative.

SHRIMPS.

Sample No. 868.—This sample when analysed in bulk was found to contain 0.6 per cent. of boracic acid, but when the edible portion was analysed it contained 0.5 per cent. The Analyst observed "the use of boracic acid preservative in the case of unpicked shrimps is in my opinion quite unnecessary." A warning letter was written to the vendor and no further action was taken.

POTTED SHRIMPS.

Sample No. 819.—Contained 0.37 per cent. boracic acid, no label. No action was taken.

Sample No. 850.—Contained 1.25 per cent. boracic acid. The Analyst observed "this quantity of boron preservative is in my opinion grossly excessive." The vendor was prosecuted but the case was dismissed.

Sample No. 869.—Contained 0.4 per cent. boracic acid, no label. No action was taken.

Sample No. 897.—Contained 0.4 per cent. boracic acid. Unlabelled. No action was taken.

BOILED HAM.

Sample No. 821.—Contained 0.25 per cent. boracic acid, no label. No action was taken.

Sample No. 895.—Contained 0.1 per cent. boracic acid, no label. No action was taken. These two samples were taken from the same vendor.

LOBSTER PASTE.

Sample No. 851.—Contained 0.45 per cent. boracic acid, labelled as containing other fish, but the preservative was not mentioned. No action was taken.

All potted lobster is now labelled as being a mixture of lobster and other fish. Previously it was sold as Potted Lobster alone and the addition of other forms of fish was not revealed.

PRESCRIPTION.

Sample No. 964.—This was an unofficial sample and was certified to be deficient in Iodide of Potassium to the extent of about 16 per cent. A formal sample was subsequently taken but proved to be genuine.

The six samples of flour which were taken were informal and were all of different brands. They were taken direct from the sacks.

FERTILISERS AND FEEDING STUFFS ACT, 1896.

Mr. Thomas Sanderson, the Chief Sanitary Inspector, is the Sampling Officer under this Act, and only one application was received by him to have a sample analysed. This was a sample of "Oatmeal," which was found to be adulterated with wheat flour. A request was made to the farmer to order another lot but he stated that it was now sold as "Feeding Meal." After consultation with the Analyst it was felt that there was no object to be served by taking a further sample in view of the change of name.

INSPECTION OF NEW HOUSES.

The procedure adopted with regard to new houses remains as in previous years, viz., the Borough Surveyor notifies me of the completion of the building. The houses are then examined by my Department and reports thereon made and sent to the Borough Surveyor. 441 new houses were examined during the year and in all of them the sites were concreted. In 40 cases the drains were unsatisfactory on the first test, and it was necessary that some alteration should be made to them.

In 16 cases the closets were of unsatisfactory construction, the defect in the majority of cases being an insufficient area of water in the closet pan. In the tabulated statement on page 146 it states that 126 new houses were without ash receptacles, but this is due to the fact that in these cases the landlords had delayed providing them until the tenants actually came into occupation.

STORAGE OF HOUSEHOLD REFUSE.

This department of the work has received special care as the importance of cleanly surroundings in the maintenance of health cannot be over-rated.

The large ashpits are gradually disappearing and being replaced by galvanised ashbins with tight covers. 1,280 visits have been paid for the purpose of inspecting ash receptacles. In 499 instances the receptacles were satisfactory while in 191 instances they were unsatisfactory. It was necessary to issue 183 Preliminary and 51 Council notices to replace unsatisfactory galvanised iron bins.

FORMATION, PAVING, &c., OF STREETS.

The Borough Surveyor has kindly supplied me with the following list of streets made during the year 1910 :—

6 FRONT STREETS.

Rosebery Avenue.
Cumberland Avenue.
Poplar Street.
Claremont Avenue—Part of.
Westbourne Avenue.
South Side of Marton Church.

21 BACK STREETS.

East Side of Layton Lane.
South Side of Camden Road.
North Side of Bryan Road—East of Whitley Street.
North Side of Bryan Road—West of Whitley Street,

South Side of Palatine Road—behind Central Drive.
Behind Nos. 3 to 5, Palatine Road.
Between 18-24 and 26, Charnley Road.
East Side of Haynes Street.
Behind 78 to 102, St. Walburgas Road.
West Side of Haynes Street.
Leading from Raikes Road to Leamington Road.
Behind Nos. 36 to 46, St. Walburgas Road.
Behind Nos. 7 to 13, Palatine Road.
Between Nos. 188 to 190, Waterloo Road.
Behind East Side of Woolman Road.
Behind Nos. 78-88, Granville Road
Behind Nos. 100-122, Waterloo Road.
Behind Nos. 4-46, Eccleston Road.
Behind Nos. 3-33, Threlfall Road.
Behind West Side of Sherbourne Road.
North Side of Warley Road, from Sherbourne Road, in an Easterly direction.

2 Passages.

Behind Nos. 3-21, High Street.
Behind Nos. 4-12, Howard Street.

HOUSING OF THE WORKING CLASSES ACT.

It has not been considered necessary to conduct any work under this heading during the year 1910.

OFFENSIVE TRADES.

The following exist in the Borough :—

Blood Drier—At Public Slaughter-house		1
Tripe Boilers	Do.	2
Gut Scrapers	Do.	1
Hide, skin and fat depot	Do.	2
Rag and bone depots in the Borough		3

The first six premises were under daily inspection. The last three were visited weekly, and found satisfactory.

No legal proceedings were instituted during the year for carrying on offensive trades without permission.

COMMON LODGING-HOUSES.

Under The Blackpool Improvement Act, 1901, sec. 47, the three Common Lodging-houses previously existing were re-registered. These houses, with their accommodation, are as follows :—

Eden Street......	160 adults and 1 child
Seed Street... .	56 adults and 1 child
Gavan Street	148 adults and 22 married couples, or 217 adults and 1 child.

973 visits of inspection were paid, and it was found on the whole that the Lodging-houses were kept in a cleanly condition, and managed satisfactorily.

SMOKE NUISANCES.

Fourteen full half-hour observations have been made and in one case the limit of 2½ minutes black smoke in the half-hour was exceeded. A prosecution was instituted and an order for the abatement of the nuisance and 9s. 6d. costs were obtained.

Many observations of shorter periods have also been made, and attention called to the emission of black smoke even where the limit had not been exceeded.

It is a most important item in maintaining the reputation of Blackpool as a health resort that the atmosphere shall be kept as free from smoke as possible.

SANDS INSPECTION.

The sands and foreshore have been kept well under observation during the year, 258 visits having been paid.

The temporary screening which has taken place in the sewage chamber in Manchester Square has had a marked effect on the cleanliness of the sands, and I fully anticipate that when the permanent screens are in full working order the nuisances which have occurred in the past will be completely obviated. I am informed by the Borough Surveyor that the process of the erection of the screens has been carried on during the winter and that the work is now practically completed.

The following are the results of the visits of inspection paid by my department :—Out of 258 visits paid the sands were found perfectly clean on 220 occasions.

The sewer outfall at North Shore requires attention. During very low tides the end of the outfall is bare and as sewage is discharged at all states of the tide the condition is far from desirable. On these occasions I reported the matter to the Health Committee who instructed that a copy of the report be sent to the Borough Surveyor. I am informed by him that he is preparing a scheme for dealing with this matter.

BASEMENT DWELLINGS.

At the December, 1909, meeting of the Health Committee, I was instructed to prepare a report on the Basement Dwellings, and the following is a copy of the Report which I read to the Committee on the 19th of January, 1910:—

REPORT ON BASEMENT DWELLINGS.

To the Chairman and Members
of the Health Committee.

Gentlemen,

In accordance with a resolution passed at the last meeting, I have prepared the following Report on Basement Dwellings.

These basement dwellings must be clearly distinguished from cellar dwellings, for in the vast majority of them there is a large amount of space in front of the windows, and either the back or the front are at or nearly at, a level with the back or front street. There are one or two tenements let off which might be described as cellar dwellings, the rooms being lighted only by a small grating at the street level in front of the windows, and I think these should not be allowed to be used as combined living and sleeping rooms.

There are no special Bye-Laws in force dealing with basement dwellings, and the only control which can be exercised over them is the same as that over any other part of a dwelling house, viz., to see that they are kept clean, dry, and not overcrowded.

However undesirable it may be that one basement room should not be used for the purposes of sleeping, cooking, eating, etc., there is no legal reason that it should not be so used any more than a room in the upper part of the house should be used as a combined bed-sitting room.

I have information of eighty-eight houses in the town whose basements are let off as separate tenements, viz.,

41 in Albert Road
25 in Charnley Road
10 in Tyldesley Road
6 in Lonsdale Road
3 in Rigby Road
1 in Kirby Road
1 in Hesketh Road
1 in Blundell Street

These basements are let off either to one, two or three families as follows: 41 basements to one family each, 36 to two families each, and 11 to three families each. There are thus 146 families in the town living in basement dwellings.

The rooms are let off on weekly tenancies, most of them unfurnished, but a few furnished. The weekly rental varies from 2s. 6d. to 7s. As far as I have been able to obtain information there are as follows:—

3 at 2s. 6d.
5 at 3s.
8 at 3s. 6d.
20 at 4s.
19 at 4s. 6d.
39 at 5s.
13 at 5s. 6d.
26 at 6s.
6 at 6s. 6d.
3 at 7s.

The total weekly rental thus amounts at present to at least £33 17s. 6d. per week. In some instances the letting of basements appears to be a lucrative business, one house having three basement tenants paying 19s. per week, or £49 8s. per annum, the rental being £65. This, however, is exceptional.

I have made inquiries into the occupations of the tenants, and they are very varied, comprising cab-drivers, carters, labourers, bakers, waiters, policemen, and gypsies.

Of the 146 families living in basements, some occupy one room, some two rooms, and some three rooms. Eighty-nine families have one room each, and one cannot help wondering how these people manage to put their one room to the various usages which we usually allot to various rooms, e.g., when a birth takes place, or sickness, or death. Forty-four families have two rooms each, and thirteen have three rooms each.

Gas and water are included in the weekly rental, and the tenants have the use of the w.c. in the yard, and of the common wash house.

The width of the front area measured from the window to the street varies considerably. In Albert Road and Charnley Road the minimum is 16 feet. In other instances it ranges from 5½ to 8 feet, while in one or two cases there is no front area, only a grating in front of the window. These last constitute the cellar dwellings, to which I referred earlier in this Report.

Though some of the back basements are inclined to be dark, speaking generally there is no reason why they should not be fairly sanitary and wholesome. Where they are of an unsatisfactory nature, in most cases, as in other class of property, it is the fault of the tenant.

Five cases of overcrowding were detected, and only in one case was the tenant or wage-earner out of work. Notices have been given in each case to cease the overcrowding either by taking an extra room or by removal, but I think in the case I have mentioned a more liberal allowance of time should be given.

With regard to other sanitary conditions as regards cleanliness, etc., eight tenements were unsatisfactory, being dirty or untidy. The remainder were satisfactory, this term comprising all grades from passable to very clean.

There is a tendency in many cases to block up the passage, and separate the front from the back basement. This leads to darkness of the passage, and want of through ventilation, thus converting the basement into a back to back tenement, and it should not be allowed.

In some cases the tenants of the front basements have to go through the middle or back basement in order to reach the yard, w.c., or wash house. This, of course, is a most undesirable state of affairs, and strict supervision should be exercised over the premises where this procedure is necessary.

With regard to the general external conditions, the common nuisances are frequently met with, e.g., dirty yard, dirty gullies, etc.

Speaking generally of the basement dwellings, it may be stated that in them all classes of tenants are found. The large majority of the occupiers are clean and tidy, and make an effort to derive the best advantages from their conditions and surroundings, and on whose privacy it is not necessary or advisable to intrude too often for inspectorial purposes. Occasional visits, however, are unavoidable, for it is only by these means that we know that they are clean.

There are, on the contrary, in these basements, tenants who are undesirable, and on whom we need not have any compunction in paying frequent visits. I am glad to say that this class is in a very small minority. They are attracted by the conditions of basement dwellings, viz., the weekly tenancy, the small amount of furniture necessary, and the facilities for a speedy removal.

From the observations made at the visits during the summer and during the past month, information is obtained from a card register kept for the purpose of all these basements, their sanitary condition, and the permanency or otherwise of the tenants, and therefore it is possible to compile a list of those which require repeated visiting and supervision. I would suggest that in the meantime the matter remain in that condition, and if I find that these means are not sufficient, or that the time of the Inspectors is too fully taken up with other matters, I will report further to you.

E. W. REES JONES,

Medical Officer of Health.

12th January, 1910.

GENERAL SANITARY WORK.

As far as possible the work of the Department has been classified under separate headings in the previous pages, but there is in addition a large amount not yet specified, consisting of all the minor matters which in the aggregate are of much importance in maintaining the healthiness and salubrity of our town.

The supervision of the nomadic population occupying tents, vans and sheds has occupied a considerable amount of the time of the Sanitary Inspectors. These people frequently live with little regard to their surroundings, and unless carefully watched will pollute the neighbouring ground with refuse. 193 visits have been paid to them during the year.

The work of the District Nurse is a new departure in the Health Department. She commenced her duties in July, 1910, and since then 947 visits have been paid by her. Her work has been most acceptable to the poor and she has been able to relieve a great amount of suffering, and also to render the dying hours of several patients more comfortable and painless.

The drains of 308 old houses have been tested, and in only 85 houses were they satisfactory. The remaining 223 required either relaying or repairing. 549 tests were applied during the year while the process of repair was going on.

The large amount of work done by the Department will be realised when I call your attention to the fact that

2,268 sanitary defects were remedied. Many of these defects were only of a minor nature, yet detection of them is of importance. For instance, 631 drains were repaired or cleaned out, 49 unsuitable gullies were abolished, many sink-waste pipes trapped, and roof gutters repaired. Details of all these matters will be seen on referring to the tables on pages 145 to 147, which have been prepared, and signed by the Chief Sanitary Inspector.

Twenty-two defective back streets and 10 temporary erections in yards have been reported to the Borough Surveyor, and 21 street gullies, 1 sewer, 4 dirty back streets, and 15 manholes have been reported to the Cleansing Superintendent.

618 preliminary notices have been served for the abatement of nuisances, and it is gratifying to be able to report that in only 93 of these was it necessary to obtain authority from the Health Committee to issue legal notices, owing to non-compliance with the requirements of the preliminary notices.

The matter of freer sewer ventilation in the town still awaits attention.

The consent of the Local Government Board for the adoption of certain sections of the Public Health Act Amendment Act of 1908, has been received, and this will considerably amplify the powers already possessed by the Sanitary Authority.

PROSECUTIONS IN 1910.

Months.	Act.	Details of Offence.	Result.
April	Food and Drugs Acts	Water added to milk	Fined £5 and costs.
July	Public Health Act, 1875	Chimney emitting black smoke so as to be a Nuisance	Order for abatement and 9s. 6d. costs obtained.
Do.	Food and Drugs Acts	Boracic acid in potted shrimps	Dismissed.
August	Public Health Act, 1875	Refusing admittance to Common Lodging-house	Ordered to pay costs.
September	Employment of Children Act, 1903	Employing child under 14 years of age after 9 p.m.	Fined 5/- and costs.
Do.	Do.	Do. Do.	Do.
Do.	Do.	Do. Do.	Do.
Do.	Do.	Do. Do.	Do.
Do.	Do.	Do. Do.	Do.
Do.	Do.	Do. Do.	Do.
Do.	Shop Hours Act, 1892	Failure to exhibit Shop hours Card	Fined 2/6 and costs.
Do.	Do.	Do.	Do.
Do.	Do.	Do.	Do.
Do.	Public Health Act, 1875	Keeping unregistered Common Lodging-house	Fined 5/- and costs.
Do.	Do.	Do.	Do.
Do.	Do.	Do.	Do.

CHIEF SANITARY INSPECTOR'S SUMMARY OF WORK IN THE HEALTH DEPARTMENT.

	1909.	1910.
Complaints received	311	336
Visits and Inspections (Total)	19,252	17,669
Number of Houses fully inspected	1,051	881
Number of inspections of work in progress	3,318	2,915
Visits to houses and other premises	2,843	3,356
Re-inspections in relation to nuisances under notice	1,336	1,431
Inspection of Basements	—	96
Inspections of Factories and Workshops	206	384
Inspections of Bakehouses	347	384
Inspections of Common Lodging-houses	918	973
Inspections of Manure Heaps	788	475
Sands Inspections	266	258
Visits and Enquiries in relation to Infectious Diseases	4,824	2,850
Enquiries into Deaths	775	769
Smoke observations (half-hour duration each)	9	14
Visits under Shop Hours Acts	41	24
Visits made under Midwives' Act, 1902	103	37
Visits to Tents, Vans, and Sheds	140	193
Inspections of Back Passages	169	39
Visits to Houses where Births have occurred	1,872	1,586
Visits to Houses by District Nurse	—	947
Visits under Employment of Children Act	18	18
Inspections of Premises re Trade Refuse	147	15
Manholes Inspected	81	24
Notices Served for the Abatement of Nuisances—		
Councils	150	93
Preliminary	686	618
Verbal	254	176
House Drains Tested—Total Number of Tests made	1,694	1,689

New Houses Examined—		1909.	1910.
Drains	Satisfactory	372	427
	Unsatisfactory on first test	29	40
	Rendered satisfactory after first test	29	14
W.C.'s	Satisfactory	543	555
	Of defective construction	48	16
Ash Receptacles	Satisfactory	276	315
	Unsatisfactory	127	126
Site of House	Satisfactory	401	441
	Unsatisfactory	—	—
Other Houses Drains (1st test)	Satisfactory	58	85
	Unsatisfactory	215	223
House Drains re-tested during re-laying		630	549

	1909.	1910.
Houses passed off as satisfactory after drainage defects repaired	361	351
Number of Houses where sanitary defects were found	1,029	800
Number of Houses where sanitary defects were remedied	1,301	1,209
Number of sanitary defects remedied	3,205	2,268

Drains.

	1909.	1910.
Drains laid, re-laid, disconnected, and ventilated	283	258
Drains repaired and cleaned out	597	631
Unsuitable gully traps replaced by properly trapped gullies and new gullies fixed	46	49

W.C.'s.

	1909.	1910.
New w.c.'s fixed in lieu of privies, pail closets, and defective w.c.'s	105	74
Water closets repaired	200	102
Water closets unblocked	52	34
Fittings and water provided for w.c.'s	126	172
W.C. soil pipes repaired and ventilated	77	65
Earth closets provided	1	—

Cesspools and Privies.

	1909.	1910.
Manure receptacles provided	5	2
Cesspools abolished	6	—
Cesspools provided	3	1
Privies abolished	24	—

Waste Pipes.

	1909.	1910.
Bath, lavatory, slopstone, and rainwater pipes disconnected over gullies	20	9
Do. do. do. wastepipes trapped	13	7
New slopstone wastepipes fixed	133	89
New rainwater pipes fixed	5	9
Rainwater pipes and roof gutters repaired	103	47

Miscellaneous.

	1909.	1910.
Houses cleansed and limewashed	19	18
Floors re-laid with flags	59	29
Floors re-laid with concrete	112	39
Back yards repaired	205	107
Back yards flagged or concreted	142	59
Back passages cleansed	20	9
Accumulations removed	331	143
Animals removed from improper situations	23	13
Roofs repaired	48	36
Rooms ventilated	373	215
Chimneys raised to abate smoke nuisance	5	1
Premises closed	—	—
Yards cleansed	67	28
Watercourse cleansed	2	16
Gable end of house cemented	—	—
Overcrowding ceased	—	6
Number of brackets provided for trade refuse bags	—	3
Number of manholes reported to Cleansing Superintendent	25	35

	1909.	1910.
Back streets requiring forming reported	60	22
Erections in Yards, &c., reported	13	10

	1909.	1910.
Letters	2,178	2,135
Infectious Diseases.		
Inquires into cases of Infectious Disease (see Visits and inspections)	—	—
Houses disinfected after cases of Infectious Diseases	1,250	827
Houses disinfected after a case of consumption	56	61
Other premises disinfected	125	73
Isolation notices served upon householders ...	1,380	954
Isolation notices served upon School Managers ..	1,071	642
Other notices to School Managers with regard to Infectious Diseases...	1,050	716
Other notices to Householders with regard to Infectious Disease	1,050	716
Notices to Free Library with regard to Infectious Diseases	1,260	803

Details of work done in regard to Ash Receptacles during the year 1910 :—

Total number of visits made	1,280
Satisfactory ash receptacles	499
Unsatisfactory ash receptacles	191
Re-inspections of houses under notice	590

		Preliminary.	Council
Total number of notices served	(*a*) To abolish ashpits ...	1	1
	(*b*) To repair modified ashpits	11	—
	(*c*) To provide galvanised ashbins	183	51
Total number of modified ashpits repaired ...			10
Total number of ashpits abolished			1
Total number of galvanised ashbins provided			264
Total number of informations laid			123

DISINFECTING DEPARTMENT.

Articles removed from 388 Houses to Sanatorium for disinfection :—

Sheets, quilts, blankets, etc.	2,851
Articles of clothing	8,645
Pillows and bolsters	1,632
Beds...	604
Mattresses	371
Carpets	764
Rugs and Mats	454
Curtains	1,178
Cushions	442
Table cloths	266
Books	120
Miscellaneous articles	2,757
Articles from Sanatorium	4,413
Total	24,497

T. SANDERSON, Chief Sanitary Inspector.

BLACKPOOL METEOROLOGICAL OBSERVATORY.

REPORT

AND

RESULTS OF OBSERVATIONS

FOR THE YEAR 1910.

PART IV.

BLACKPOOL METEOROLOGICAL OBSERVATORY.

The new Blackpool Observatory, erected in 1903, is situated in an open field close by a bridge crossing the railway behind the New Road Cemetery. The site is about half-a-mile from the Sanatorium site, and is about 70 feet above mean sea level. The Observatory building is of brick relieved by stone-work, and lighted by windows on the north and south sides. The building is placed four-square to the points of the compass, the doorway looking east. It is twelve feet square, nine feet high, and the floor is about two feet higher than the adjoining ground, requiring three steps at the doorway. The roof is flat and formed of concrete, supported on iron girders, and access to the roof is obtained by a flight of steps in the interior of the building, leading up through a trap door. The roof is protected by a parapet three feet high.

From the centre of the roof projects to a height of 57 feet from the ground a vertical pole of cast-iron tubing, stayed by wire guy-ropes anchored to the ground. This pole carries the "combined" Anemometer and Anemoscope head and wind vane. The wind vane has a copper mouthpiece and aluminium wings, and measures three feet from end to end. From the head, one-inch tubes pass down alongside the anemometer pole, and through holes in the concrete roof to the Dines' and Baxendell's recording instruments placed on the floor of the Observatory.

On the roof of the Observatory is placed also a wooden stand bearing the Campbell-Stokes Sunshine-recorder. This is placed some 12 feet above the roof, or 25 feet above the ground level. In the Observatory room is placed the Fortin barometer. The Observatory contains also a telephonic installation, so that messages in regard to the weather may be communicated without delay.

The grass enclosure is about 65 feet to the south-east of the Observatory and 67 feet above mean sea-level and is 24 feet square. It contains in the centre a 5in. rain-gauge, with M.O. pattern rim. To the west of this is fixed one of Halliwell's recording rain-gauges. The Stevenson screen with its instruments occupies the centre of the north side of the enclosure, and in the north-west corner is the one foot earth thermometer. In the centre of the south side is fixed the 4-feet earth thermometer, and east of this the two solar radiation thermometers are placed four feet above the ground, one a bright bulb *in vacuo* and the other a black bulb *in vacuo*.

Near the south-east corner of the enclosure a minimum recording thermometer with link bulb is supported close to the grass, and gives the lowest temperature during the 24 hours.

INSTRUMENTS.

The equipment of the Department consists of :—

In or on the new Observatory building—

(i) A Standard Fortin Barometer.

(ii) A Campbell-Stokes Sunshine Recorder.

(iii) A Wind Vane and a Patent Pressure Tube Anemometer.

(iv) A Baxendell's Recording Anemoscope.

(v) A Recording Barograph.

(vi) A Micro-Barograph.

In the Grass Enclosure—

(vii) A Stevenson Screen, containing wet and dry bulb and maximum and minimum thermometers.

(viii) An Earth Thermometer at a depth of four feet.

(ix) An Earth Thermometer at a depth of one foot.

(x) A Rain Gauge, 5in. M.O. pattern rim.

(xi) One solar radiation maximum thermometer, bright bulb *in vacuo.*

(xii) One solar radiation maximum thermometer, black bulb *in vacuo.*

(xiii) One terrestrial radiation (or minimum on grass) thermometer.

(xiv) One Halliwell's Patent Recording Float Pattern Raingauge.

RETURNS AND REPORTS, &c.

The Blackpool Observatory is recognised by the Meteorological Office and the Royal Meteorological Society as a Second Order Station. Observations are taken at 9 a.m., 6 p.m., and 9 p.m. daily, and readings recorded of all the chief instruments. A cipher telegram is sent at 6 p.m. each day to the Meteorological Office, which gives the thermometer and barometer readings, the amount of sunshine, direction of wind, and the kind of weather during the day. This information is communicated to the press, and appears in the London daily papers next morning. In addition a post card is despatched every night, giving the 9 p.m. readings, and the records are published on page 4 of the "Daily Weather Report" issued the following morning from the Government Office. The "means" for the week are prepared from these postcards by the Meteorological Office, and published in the Weekly Weather Report. A monthly summary is also prepared for the Meteorological Society, but sent direct to the Government Office, whose officials abstract the information required for the "Monthly Weather Report," and afterwards forward the Summary to the Royal Meteorological Society. Returns are also sent to the British Rainfall Organisation.

As it is impossible for the observer to get down to the Post Office in time after the 9 p.m. reading, I have arranged for the officials at the Conservative Club, in Victoria Street, to receive the message by telephone, and fill up and post the daily postcard. I have to acknowledge my indebtedness for this privilege.

During 1910, a great deal was done to supply prompt information as to the Blackpool weather to the papers in different parts of the country. Telegrams recording the state of the weather were sent each forenoon throughout the year to the Exchange Telegraph Company, London, "Lancashire Daily Post," "Bolton Daily Chronicle," "Burton Evening Gazette," "Bolton Evening News," "Huddersfield Examiner," "Halifax Courier," "Liverpool Echo," "Manchester Evening News," and an evening telegram was also sent to the "Liverpool Daily Post and Mercury," "Liverpool Courier," Manchester Courier," "Yorkshire Daily Observer," "London Daily Chronicle," "Birmingham Daily Post," "Newcastle Daily Chronicle," and the Weather Bureau, London. During the summer months morning or evening telegrams were sent to 32 daily papers.

There can be no doubt that the increased publicity given to our weather records has been of material advantage to Blackpool.

During the early part of the year Captain C. H. Ley, F. R. Met. Soc., conducted a number of balloon experiments at the Blackpool Observatory, on behalf of the Joint Upper Air Committee of the Royal Meteorological Society, and of the British Association, and these bodies have expressed their thanks for the assistance afforded by the Health Committee in carrying out the experiments.

As in previous years the observations have been taken by Mr. Harry Smith, and I have much pleasure in acknowledging the cheerfulness and faithfulness with which he has carried out this responsible work, which has been more exacting than ever since the commencement of the Second Order observations, which involve much extra work.

Mr. W. Diggle has been trained to act as deputy observer when necessary. The Chief Clerk, Mr. Berry, has also given important help in the preparation of the reports.

The records of observations of temperature, sunshine, rainfall, &c., taken at the new Observatory are complete for the five years—1904-1908—and tables of averages have been compiled for these years. The results for 1910 in the tables appended are compared with these averages.

METEOROLOGICAL REPORT, 1910.

YEAR.—The climatic conditions during the year had some features in common with those of its predecessor, especially as regards the distribution of rainfall and deficiency of bright sunshine during a portion of the summer solstice. The weather, however, was milder, with the exception of November, and the winter months were particularly free from falls of snow, and the winter will be recorded as one of the brightest and mildest on record.

The chief meteorological features of the year were the abnormally low readings of the barometer, especially between April and August, and the comparative freedom from severe gales ; the frequency of daily precipitation of rain as compared with the actual total rainfall ; and the rarity of snowfalls.

The driest periods of the year were between 10th of March and 11th April, 6th and 23rd July, and practically the whole of September.

The following table will show the months in which the values of sunshine, rainfall, and mean shade temperature, differed from the averages (1904 to 1908.)

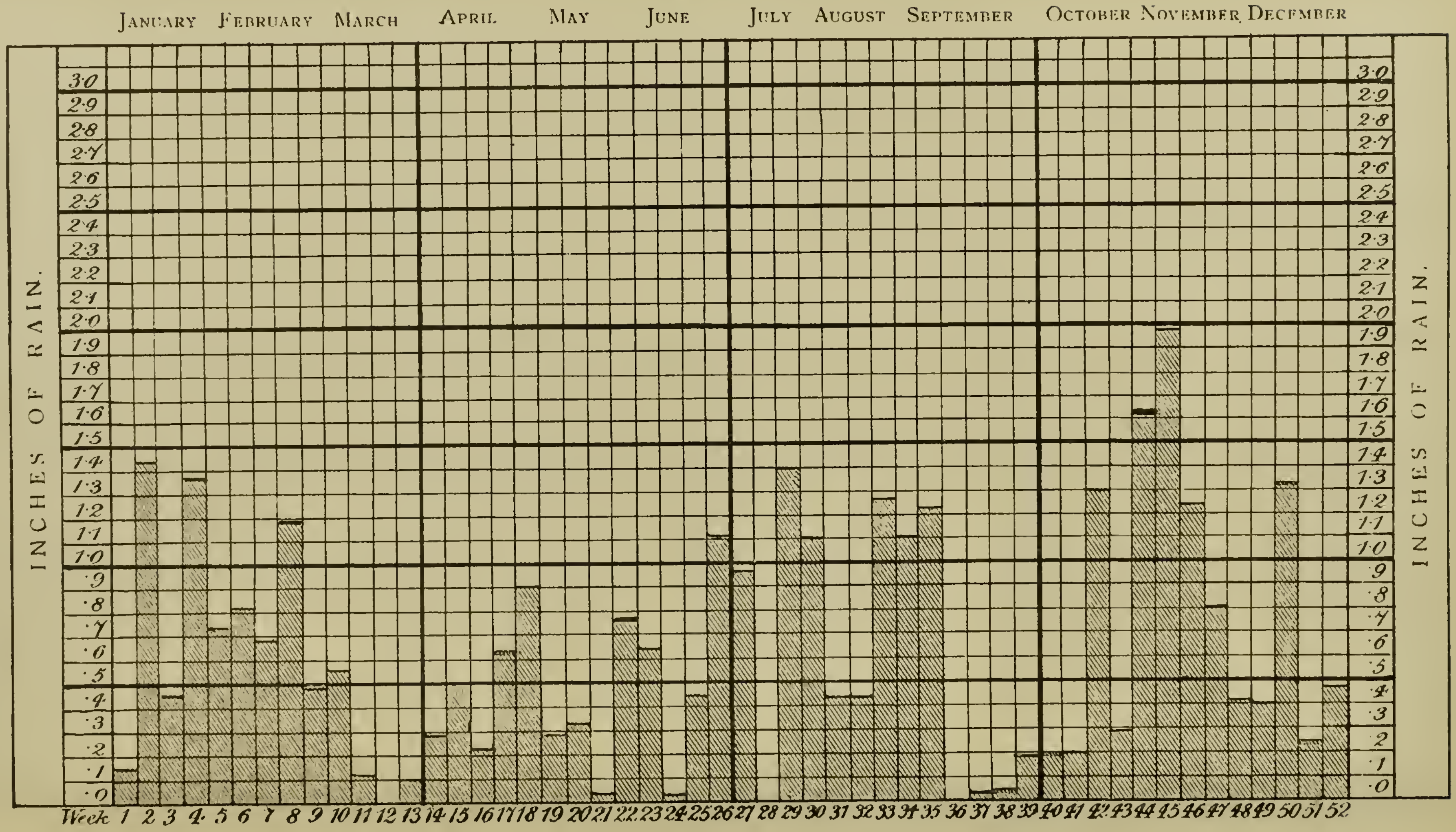
DISTRIBUTION OF BRIGHT SUNSHINE, &c.

MONTHS.	Bright Sunshine.	Rainfall.	Mean Shade Temperature.
January	+17.3	+1.11	—0.9
February	+15.6	+1.09	+2.0
March	+ 1.9	—1.45	+2.5
April	—37.3	—0.37	—0.3
May	+62.3	—0.65	+1.9
June	+ 6.1	+0.02	+1.6
July	+ 8.7	+1.41	—1.9
August	—46.2	+0.95	+0.4
September	—13.3	—2.03	—1.3
October	—27.9	—0.72	+0.8
November	+20.3	+2.00	—5.0
December	— 3.8	+0.21	+3.6
Year 1910	+ 3.7	+1.57	+0.3
Year 1909	+32.3	+3.78	—1.0

+ more than. — less than average.

BRIGHT SUNSHINE.—Bright Sunshine was 3.7 hours above the average for the years 1904-1908, and 218 hours above the Meteorological Office average of 25 years, 1881-1905. The diurnal amount for 1910 and the total amount recorded in a series of years will be found in the accompanying tables.

CHART IV. (Rainfall in Inches—weekly—1910).



DAILY AMOUNT OF BRIGHT SUNSHINE AND RAINFALL, 1910.

Day.	Jan.		Feb.		March.		April.		May.		June.		July.		August.		Sept.		Oct.		Nov.		Dec.		Day
	Sunshine Hrs.	Rainfall In.	Sunshine Hrs.	Rainfall In.	Sunshine Hrs.	Rainfall In.	Sunshine Hrs.	Rainfall In.	Sunshine Hrs.	Rainfall In.	Sunshine Hrs.	Rainfall In.	Sunshine Hrs.	Rainfall In.	Sunshine Hrs.	Rainfall In.	Sunshine Hrs.	Rainfall In.	Sunshine Hrs.	Rainfall In.	Sunshine Hrs.	Rainfall In.	Sunshine Hrs.	Rainfall In.	
1	—	.22	4.1	.09	5.0	.31	10.3	—	5.7	—	4.1	.09	4.7	.13	6.0	.11	7.4	.09	9.0	.01	6.2	.34	—	—	1
2	—	.04	—	.17	—	.01	8.9	.05	8.0	—	2.9	.47	5.8	.16	1.4	.25	—	.06	6.1	.17	1.1	.41	—	—	2
3	—	—	0.8	.07	6.3	—	2.7	—	0.9	.15	12.3	—	11.0	.02	8.5	.01	7.4	—	5.0	—	1.5	.01	—	.23	3
4	1.6	—	7.6	.19	7.2	—	3.9	.06	9.6	.27	1.0	—	10.8	—	3.4	.01	11.3	—	1.3	—	6.0	—	—	.11	4
5	—	.01	—	.12	7.6	—	—	.19	6.8	.27	3.9	—	1.3	.90	11.4	—	7.7	—	7.3	.01	1.2	.19	0.2	.05	5
6	—	—	—	.16	2.0	.13	5.1	—	9.4	.05	7.9	.02	0.1	.05	7.7	.05	4.5	—	2.0	.01	0.6	.27	—	.03	6
7	—	—	0.4	.30	5.3	.01	8.0	—	8.9	.16	15.4	.31	7.2	—	0.4	—	1.1	—	2.4	—	2.9	.06	4.1	.05	7
8	—	.09	3.4	.12	0.9	.18	2.8	—	9.5	—	1.7	.07	5.6	—	6.7	—	1.4	—	5.4	—	3.9	.23	—	.03	8
9	—	.07	5.5	.01	1.3	.12	0.1	.04	6.1	.02	8.6	.24	14.5	—	6.7	—	8.5	—	0.1	—	5.5	.03	0.1	.05	9
10	4.2	.25	0.2	.11	6.1	.01	7.1	—	11.5	—	12.1	—	15.4	—	13.0	—	0.3	—	0.7	.06	0.5	.89	—	.09	10
11	1.8	.16	4.3	.05	2.4	.10	8.5	—	14.0	.12	7.6	—	10.6	—	7.5	.42	3.6	.01	0.3	.13	3.8	.11	0.1	.16	11
12	2.6	—	3.3	.06	0.8	—	—	.06	4.3	—	14.4	—	13.7	—	2.3	.01	2.4	.02	—	.01	—	.39	0.2	.14	12
13	0.2	.17	0.3	.13	8.5	—	0.2	.06	12.7	—	6.4	—	14.1	—	3.3	—	4.6	—	5.3	—	—	.48	1.0	.08	13
14	1.0	.11	5.9	.11	0.2	.03	11.5	.16	13.4	.15	13.7	.01	14.9	—	3.1	.27	9.1	—	8.3	—	—	.25	0.6	.18	14
15	0.3	.68	6.7	.01	9.3	—	4.5	.14	1.3	.17	6.3	—	13.4	—	12.0	.01	0.6	—	9.0	—	—	.11	0.1	.46	15
16	2.2	.02	4.4	.17	—	.01	2.0	.08	10.7	—	6.5	—	14.1	—	5.7	.04	7.6	—	0.9	.03	2.1	.21	—	.31	16
17	2.7	.27	4.5	.02	3.9	.06	7.1	—	11.7	—	14.6	—	6.2	—	4.7	—	8.6	—	—	.32	5.7	.08	—	—	17
18	—	.01	3.4	.05	6.4	—	—	.07	1.0	.04	10.0	—	14.7	—	4.9	.46	—	—	0.6	.72	6.4	—	4.9	.04	18
19	1.8	.01	4.4	.18	1.1	.02	0.3	.02	3.3	.03	10.3	—	3.3	—	4.8	.01	6.8	—	0.5	.17	0.9	.11	2.3	.02	19
20	4.7	.02	1.0	.48	3.9	—	—	.12	10.1	.03	8.1	.02	—	1.40	1.2	.48	9.7	—	4.5	.07	7.3	—	—	.14	20
21	6.9	—	4.3	.01	6.8	—	6.8	—	4.2	.06	9.2	—	9.7	—	0.3	.12	7.0	—	3.8	—	7.2	—	—	—	21
22	6.6	.12	2.2	.11	9.9	—	2.9	—	9.5	—	10.1	.05	7.0	—	4.6	.01	5.4	—	1.5	.01	2.4	—	5.0	—	22
23	—	.57	8.4	.17	—	—	—	.02	13.6	—	13.3	.08	9.0	—	2.8	.04	1.4	—	6.4	—	—	.54	—	.05	23
24	0.3	.10	2.7	.10	—	—	5.1	.12	13.8	—	2.4	.29	1.2	.27	5.8	—	2.7	.04	—	—	—	.04	3.6	—	24
25	6.8	—	7.1	.19	2.2	—	10.8	.01	14.6	—	2.6	.02	2.3	.38	0.8	.50	0.2	—	—	—	1.0	—	2.7	.11	25
26	7.5	—	0.5	.13	8.7	—	9.4	.02	8.2	—	10.4	—	4.2	—	1.4	.28	0.1	.03	—	—	—	.22	—	.19	26
27	2.6	.39	9.6	.08	0.5	.05	6.1	.27	3.0	.01	1.3	.56	3.4	.14	2.5	.15	7.6	—	0.9	—	—	.11	6.3	—	27
28	—	.32	1.8	.09	11.1	—	2.9	.19	—	.03	7.6	.03	1.2	.33	—	.74	2.6	.03	—	.27	0.4	.08	—	.08	28
29	5.4	—	—	—	10.6	—	10.8	.03	0.7	.06	1.7	.24	9.1	—	5.5	.31	—	.12	—	.01	6.1	—	2.8	.01	29
30	6.6	.01	—	—	6.9	—	2.7	—	7.5	.13	4.4	—	3.1	—	1.1	.01	9.4	—	0.2	—	3.4	—	1.5	—	30
31	—	.08	—	—	8.1	—	—	—	7.1	.02	—	—	3.2	—	1.0	.02	—	—	0.2	.69	—	—	0.1	.09	31
Total sunshine hours	65.8		96.8		143.0		140.5		241.1		230.8		234.8		140.5		139.0		81.7		76.1		35.6		
Total rainfall inches		3.72		3.48		1.04		1.71		1.77		2.50		3.78		4.31		0.40		2.69		5.16		2.70	

BRIGHT SUNSHINE.—Average daily duration 1910, **4.1** hours.

Bright Sunshine in Blackpool during 20 Years, 1891—1910.

Year.	Hours.	Year.	Hours.	Year.	Hours.	Year.	Hours.
1891	880.2	1896	1,367.2	1901	1,687.4	1906	1,679.1
1892	1,384.6	1897	1,485.6	1902	1,522.8	1907	1,518.8
1893	1,497.3	1898	1,386.2	1903	1,474.2	1908	1,615.1
1894	1,310.2	1899	1,481.7	1904	1,539.1	1909	1,654.3
1895	1,470.3	1900	1,406.1	1905	1,757.9	1910	1,625.7

There were 306 days (or 84 per cent.) during the year on which bright sunshine was recorded, and 59 sunless days. The sun shone on every day in June, whilst May, July, and August had each one sunless day.

The brightest months were May, with 241.1 hours, June, with 230.8 hours, and July, with 234.8 hours.

The brightest days of the year were the 7th of June, and the 10th of July, each with 15.4 hours.

Rainfall.—Rain to the amount of one-hundredth of an inch or more fell on 217 days, as against 198 days in 1909. The total rainfall amounted to 33.26 inches, or 1.57 inches above the average for the years 1904-1908, and 0.5 of an inch below the Meteorological Office average for the 35 years 1871-1905.

The months of greatest rainfall were November, with 5.16 inches, August with 4.31 inches, July, with 3.78 inches, January, with 3.72 inches, and February, with 3.48 inches. The months of least rainfall were September, with 0.40 of an inch, and March, with 1.04 inches.

GALES.—Gales occurred on 24 days during the year. In gusts the highest velocity was 76 miles per hour on the 21st of February. February, November, and the latter part of August were the most boisterous periods of the year.

SNOW.—Snow or sleet fell on 5 days, and hail on 20 days. On the 28th of January we experienced the heaviest snowfall for a number of years, but with this exception the falls of snow were very light.

FOG.—With the exception of a sea fog on the 19th June we were free from fog throughout the year.

THUNDERSTORMS.—Slight thunderstorms occurred on 13 days. Thunder was heard but lightning not seen on 5 days.

As regards the winter months, I would draw attention to the comparison figures of three inland stations in Lancashire.

Climatic Conditions in Blackpool during the Winter Months of 1910 as compared with three Inland Stations in Lancashire :—

Meteorological Station.	JANUARY.			FEBRUARY.			MARCH.		
	Mean Shade Temp.	Hours of Bright Sunshine	Rainfall in inches.	Mean Shade Temp.	Hours of Bright Sunshine	Rainfall in inches.	Mean Shade Temp.	Hours of Bright Sunshine	Rainfall in inches.
Blackpool	38·4	65.8	3·72	40·7	96.8	3·48	43·5	143·0	1.04
Bolton	36·3	30·4	4·28	39·3	52·7	3·72	42·7	98·3	0.87
Manchester (Prestwich) ...	36·8	27	4·33	40·3	51	3·64	43·1	105	0.77
Do. (Whitworth Park)	38·3	22	3·55	40·9	48	2.69	41·9	97	0.60
Stonyhurst	36·7	44	8.40	39·7	65	5.62	42·3	120	1.05

Meteorological Station.	OCTOBER.			NOVEMBER.			DECEMBER.		
	Mean Shade Temp.	Hours of Bright Sunshine	Rainfall in inches.	Mean Shade Temp.	Hours of Bright Sunshine	Rainfall in inches.	Mean Shade Temp.	Hours of Bright Sunshine	Rainfall in inches.
Blackpool	50.7	81.7	2.69	38·7	76.1	5.16	43·5	35·6	2.70
Bolton	50.7	61.3	3·75	37·2	50.8	7·51	42·5	9.8	3·83
Manchester (Prestwich) ...	51.1	56	3·33	36.8	31	5.09	43·2	10	3.05
Do. (Whitworth Park)	52.2	62	2.96	38.2	15	4.02	44·3	10	2.19
Stonyhurst	50.6	71	4.05	37·3	61	5.48	42.8	21	4·73

EXTREMES FOR THE YEAR.

BAROMETER.—The highest observed reading of the barometer at Blackpool (reduced to 32°F., and mean sea level), was 30.626 inches on 31st March. The lowest reading was 28·497 inches on the 7th November. The difference between the barometric maximum and minimum was 2.129 inches. The greatest monthly range, 1.850 inches, occurred in January, and the smallest range, 0.719 inch in September.

TEMPERATURE.—The highest temperature recorded in the Stevenson Screen by the maximum thermometer was 77.6 degrees on the 14th July; the lowest recorded by the minimum thermometer in screen was 17.1 degrees, on the 26th January.

The highest temperature recorded by the black-bulb solar radiation thermometer was 131.9 degrees, on the 21st July. The lowest temperature recorded by the minimum on grass thermometer was 10.4 degrees, on the 27th January.

SUNSHINE.—The greatest duration of sunshine upon one day was 15.4 hours on June 7th and July 10th.

RAINFALL.—The heaviest daily falls of rain were 1.40 inches on the 20th July, and 0.89 inch on the 10th November.

The greatest intensity of rainfall shown on the automatic record charts occurred on the 21st July, when 0.46 of an inch fell in three and a half hours. The longest duration of rainfall recorded was from 11 a.m. on the 20th July to 7 a.m. on the 21st July, *i.e.*, 20 hours' continuous rainfall.

MAIN FEATURES OF THE MONTHS, 1910

JANUARY.—With the exception of the last week of the month the weather was mild, but unsettled and changeable. There was almost a total absence of bright sunshine between the 1st and the 9th, only 1½ hours being recorded, but from the latter date there were many days with prolonged intervals of bright sunshine. Mean shade temperature was 0.9 degree below the average. The coldest day was the 26th, when the temperature fell to 17.1 degrees in the shade, and frost was recorded in shade on 9 days, and upon the grass on 12 days. Rainfall exceeded the average by 1.11 inches, and was particularly heavy in the second and fourth weeks. Rain fell on 22 days. Atmospheric pressure was below the average. The winds were mainly from the West and South-west. Gales occurred on the 11th and 28th, and slight thunderstorms on the 11th and 14th. Hail fell on the 11th and 17th, and on the 28th we experienced one of the heaviest falls of snow for a number of years.

FEBRUARY.—The weather was mild, but of a very unsettled and varied type, characterised by high winds and gales, frequent showers of rain interspersed with lengthy intervals of brilliant sunshine. Bright sunshine was 15½ hours above the average. There were only 3 sunless days. Mean shade temperature was two degrees above the average. Frost was recorded in shade on 3 days, and upon the grass on 12 days. The rainfall exceeded the average by 1.09 inches, and rain fell on every day of the month. Barometric pressure was low, and gales were of frequent occurrence. South-westerly winds prevailed. Snow fell on the 26th, and hail on the 3rd, 11th, 15th, and 24th.

MARCH.—A bright, dry, and quiet month. Mean shade temperature was 2.5 degrees above the average. Frost was registered in the shade on one day, and on 10 days upon the grass. The highest temperature recorded in the sun was 107.8 degrees on the 28th, and the lowest temperature on the grass was 24.3 degrees on the 30th. Bright sunshine was 1.9 hours above the average. There were four sunless days. Rainfall was deficient by 1.45 inches. Atmospheric pressure was steady. The winds were mainly from the North-west. A gale occurred on the 10th. Hail fell on the 11th, and there were slight sleet showers on the 18th. A solar halo was seen on the 30th.

April.—The weather was cool and dull, with a prevalence of of strong and cool North-westerly winds. Mean shade temperature was below normal. Frost was recorded in shade on 3 days, and on 10 days upon the grass. The lowest temperature recorded on the grass was 15.7 degrees on the 1st. Bright sunshine was 37 hours below normal. Rainfall was slightly deficient. Barometric pressure was unsteady. The winds were generally from the North-west. Slight thunderstorms occurred on the 15th and 16th, and hail fell on the 28th.

May.—The brightest month of the year. Cool and changeable during the first fortnight, but afterwards warmer, and more seasonable. Mean shade temperature was 1.9 degrees above the average. The highest temperature recorded in the shade was 75.1 degrees on the 20th. Frost was recorded in shade on one day, and ground frosts on 8 days. Bright sunshine was in excess by 62 hours, and there was only one sunless day. Rainfall was deficient by 0.65 of an inch. Atmospheric pressure was low. The prevailing wind was North-west. Hail fell on the 3rd, 4th, 6th and 10th, and gales occurred on the 5th and 6th. Thunderstorms occurred on the 6th, 17th and 20th.

June.—Bright and genial between the 9th and 23rd, but the remaining period was showery. Mean shade temperature was 1.6 degrees above normal, and no ground frost was recorded. Bright sunshine was 6.1 hours in excess of average, and there were no sunless days. Rainfall was equal to the average. Atmospheric pressure was low. The general direction of the wind was North-west. A thunderstorm occurred on the 8th. A sea fog was experienced on the evening of the 19th, and a gale on the 28th.

July.—A cool month, bright, but unsettled at the beginning and end of month. Mean shade temperature was 1.9 degrees below the average. A ground frost was recorded on the 18th. Bright sunshine was 8.7 hours above the average. Rainfall was 1.41 inches in excess of the average. With the exception of one day no rain fell between the 6th and 23rd. Atmospheric pressure was again low. North-west winds predominated. Gales occurred on the 6th and 26th.

August.—One of the most unseasonable and unsettled months of the year. Mean shade temperature was slightly below normal. Bright sunshine was deficient by 46 hours, and rainfall was in excess of the average by nearly one inch. Atmospheric pressure, as in the preceding months, was low, and high winds and gales were of frequent occurrence towards the end of the month. Slight thunderstorms occurred on the 4th and 15th. The winds were generally from the West.

September.—A calm, dry month, with the temperature and sunshine, however, below the average. Frost was recorded upon the grass on 4 days. Bright sunshine was deficient by 13 hours, and rainfall by 2.03 inches. The rainfall is the smallest amount recorded in September since the commencement of observations in 1885. Atmospheric pressure, in contrast to the preceding months, was high and steady. North-west winds prevailed. No gales were recorded.

October.—The weather was mild, and with the exception of a few days between the 16th and 20th, was fairly dry. Mean shade temperature was 0.8 degree above the average. Ground frosts only were recorded on 5 days. Bright sunshine was 27 hours below the average. Rainfall was deficient by 0.72 of an inch. The winds were chiefly from the East. Atmospheric pressure was high. Gales occurred on the 3rd and 31st.

NOVEMBER.—A boisterous, wet and cold month. Mean shade temperature was 5 degrees below the average. Frost was recorded in shade upon 11 days, and ground frosts on 17 days. Notwithstanding the inclement conditions bright sunshine was 20 hours in excess of the average. The rainfall amounted to 5.16 inches. Atmospheric pressure was very low, and fell to 28.497 inches on the 7th. Gales occurred on the 1st, 6th, 7th, and 17th. The direction of the wind varied between South-east and West-north-west.

DECEMBER.—A calm, mild, but wet month, rainfall being almost of daily occurrence. Mean shade temperature was 3.6 degrees above the average. Frost was recorded in shade on one day, and ground frosts on 7 days. Bright sunshine was 3.8 hours less than the average. The rainfall amounted to 2.70 inches, or 0.21 of an inch above normal. Atmospheric pressure was again low, and reached its minimum, 28.804 inches at 9 a.m. on the 16th. The general direction of the wind was South-south-east. There were no gales during the month.

BAROMETRIC PRESSURE* corrected to 32° F. and mean sea level.

1910.	Mean Pressure.	Difference from Average 5 years 1904-1908.	Highest.	Lowest.	Observed Monthly Range.
January ...	29.753	— .314	30·516	28·666	1.850
February	29.511	— .376	30 287	28·560	1.727
March	30.124	+ .211	30.626	29·419	1 207
April	29.791	— .125	30·525	28·866	1.659
May	29.882	— .061	30·347	29·266	1.081
June	29.874	— .129	30·361	29·434	0.927
July	29.843	— .173	30·161	29·324	0.837
August	29.802	— .131	30·210	29·322	0.888
September	30.233	+ .183	30·536	29·817	0.719
October	30.025	+ .104	30 570	29·260	1.310
November	29.597	— .304	30·193	28·497	1.696
December	29.631	— .276	30·392	28·804	1.588
Means	29.839	— .116	Highest 30·626	Lowest 28·497	1.291

* From observations at 9 a.m. and 9 p.m. daily.

TEMPERATURE—Stevenson Screen Results.

(IN DEGREES FAHRENHEIT).

1910.	Mean Maximum.	Mean Minimum	Mean Temp. *	Difference from Average 1904-08.	Mean Daily Range	Absolute extremes.			
						Highest	Date	Lowest	Date
January ...	42·6	34·1	38·4	−0·9	8·5	52·0	9th	17·1	26th
February ...	45·2	36·2	40·7	+2·0	9·0	52·6	19th	29·1	9th
March	48·8	38·2	43·5	+2·5	10·6	55·4	29th	31·4	30th
April	50·1	38·4	44·2	−0·3	11·7	55·7	6th	26·2	2nd
May	57·8	43·6	50·7	+1·9	14·2	75·1	20th	31·3	9th
June	64·2	50·3	57·3	+1·6	13·9	76·7	20th	44·7	4th
July	64·2	50·5	57·4	−1·9	13·7	77·6	14th	42·4	18th
August ...	64·5	53·0	58·8	+0·4	11·5	72·1	14th	45·3	1st
September ...	60·8	47·4	54·1	−1·3	13·4	66·9	28th	36·1	20th
October ...	56·0	45·3	50·7	+0·8	10·7	69·2	1st	35·6	30th
November	43·9	33·4	38·7	−5·0	10·5	54·4	1st	22·6	22nd
December ...	46·9	40·0	43·5	+3·6	6·9	52·3	5th	26·4	28th
Means	53·8	42·5	48·2	+0·3	11·2	Highest 77·6	July 14th	Lowest 17·1	Jan. 26th

* Mean of the daily indications (each for the 24 hours ending 9 p.m.) of the maximum and minimum thermometers in the screen.

HUMIDITY.

1910.	9 a.m. Readings			Elastic Force of Aqueous Vapour.	Mean relative humidity.	Difference from Average at 9 a.m. 5 years (1904-1908)
	Dry Bulb	Wet Bulb	Dew point		9 a.m.	
January	38.6	37.2	35.0	.210	87.1	—4.6
February	41.1	39.9	38.5	.235	90.4	0.0
March	45.1	43.0	40.6	.255	84.8	—1.2
April	46.2	43.5	40.5	.254	81.1	—0.1
May	54.1	50.9	47.9	.341	80.2	—2.7
June	60.4	56.3	52.8	.405	76.9	—4.0
July	60.1	56.4	53.2	.408	79.1	—2.4
August	59.8	57.1	54.7	.429	83.6	+0.8
September	57.0	54.3	51.7	.387	82.8	—0.4
October	52.5	50.0	47.7	.335	84.5	—3.1
November...	39.6	38.0	35.8	.214	86.2	—4.0
December...	44.4	43.2	41.8	.269	90.5	—1.4
Means	49.9	47.5	45.0	.312	83.9	—1.9

HUMIDITY.

1910..	9 p.m. Readings			Elastic Force of Aqueous Vapour.	Mean relative humidity	Difference from average 5 years 1904-1908
	Dry Bulb	Wet Bulb	Dew Point		9 p.m.	
January	38.6	37.6	36.3	.219	84.9	—7.1
February	40.6	39.6	38.4	.234	91.9	+1.4
March	42.4	41.4	40.1	.249	91.4	+0.1
April	43.8	42.1	40.1	.251	87.0	—0.8
May	49.4	47.8	46.0	.318	88.6	—1.8
June	55.2	53.2	51.2	.382	86.7	—2.4
July	56.9	54.6	52.4	.398	86.1	—2.6
August	58.1	56.1	54.2	.423	87.4	—1.8
September	53.2	51.8	50.4	.369	90.2	—0.3
October	50.3	48.9	47.5	.333	90.6	—0.8
November...	38.6	37.5	36.0	.214	90.7	—1.7
December	43.8	42.8	41.6	.266	92.1	+0.8
Means	47.6	46.1	44.5	.305	89.0	—1.4

TEMPERATURE EXTREMES, SOLAR AND TERRESTRIAL RADIATION.

1910	Black Bulb in vacuo.		Bright Bulb in vacuo.		Minimum on grass.	
	Highest.	Date.	Highest.	Date.	Lowest.	Date.
January	87.7	30th	59.8	4th	10.4	27th
February	95.9	21st	65.8	19th	20.9	9th
March	107.8	28th	75.2	28th	24.3	30th
April	108.7	26th	72.8	6th	15.7	1st
May	123.7	31st	89.8	20th	24.9	3rd & 8th
June	124.1	7th	92.1	7th	36.7	16th
July	131.9	21st	95.4	14th	28.9	18th
August	121.9	9th	90.3	9th	35.2	10th
September	127.9	24th	86.0	24th	24.4	20th
October	111.6	2nd	82.8	2nd	27.9	30th
November...	90.0	1st	63.0	1st	13.0	30th
December...	81.2	29th	62.8	24th	14.2	28th
Year	131.9	July 21st	95.4	July 14th	10.4	January 27th

UNDERGROUND TEMPERATURES, AND SOLAR AND TERRESTRIAL RADIATION.

1910	Mean Underground at 9 a.m.		Difference from Average 5 years (1904-1908)	Mean Daily Max. Temp. in Sun.		Mean excess of Black Bulb in vacuo over Bright Bulb in vacuo.	Mean Daily Minimum on short Grass.
	1 foot.	4 feet.		Black Bulb in vacuo	Bright Bulb in vacuo.		
January ...	39.8	43.7	+0.8	63.3	48.6	14.7	31.6
February ...	39.2	42.0	+0.1	79.0	56.0	23.0	33.2
March ..	42.2	43.0	+0.9	89.2	62.4	26.8	34.4
April... ...	44.9	41.7	+0.1	95.1	64.9	30.2	34.0
May	50.9	47.5	—0.7	109.5	75.9	33.6	37.7
June	58.0	52.3	—0.6	116.8	82.4	34.4	45.1
July	59.4	55.1	1.4	119.3	83.8	35.5	44.5
August ...	59.6	56.2	—1.2	111.2	80.5	30.7	49.6
September ...	56.2	55.7	—0.3	106.2	77.0	29.2	40.9
October ...	52.5	54.0	+0.7	84.1	65.3	18.8	38.8
November ...	43.0	49.5	+0.3	69.1	51.6	17.5	27.5
December ...	42.5	45.9	+0.2	61.2	51.2	10.0	36.1
Means ...	49.0	49.1	—0.1	92.0	66.6	25.4	37.8

DURATION OF BRIGHT SUNSHINE AND AMOUNT OF CLOUD.

1910.	Campbell-Stokes Recorder.					Cloud.	
	Total Bright Sunshine. Hours.	Difference from Average 5 years (1904-1908).	Most Sunshine in One Day. Amount. Hours.	Most Sunshine in One Day. Date.	Number of Sunless Days	9 a.m.	9 p.m.
January	65.8	+17.3	7.5	26th	12	7.2	6.9
February	96.8	+15.6	9.6	27th	3	7.4	7.8
March	143.0	+ 1.9	11.1	28th	4	6.3	7.0
April	140.5	−37.3	11.5	14th	5	8.2	7.8
May	241.1	+62.3	14.6	25th	1	6.2	6.5
June	230.8	+ 6.1	15.4	7th	—	6.6	7.3
July	234.8	+ 8.7	15.4	10th	1	7.0	7.0
August	140.5	−46.2	13.0	10th	1	7.8	8.6
September	139.0	−13.3	11.3	4th	3	6.8	6.9
October	81.7	−27.9	9.0	1st 15th	7	8.2	8.4
November	76.1	+20.3	7.3	20th	8	8.1	6.8
December	35.6	− 3.8	6.3	27th	14	8.1	8.0
Totals	1625.7	+ 3.7	15.4	June 7th July 10th	59	7.3	7.4

RAINFALL.

1910.	Total Rainfall. *	Difference from Average 5 years (1904-1908).	Number of days with 0.01 in. or more.	Greatest fall in one day. †	
				Amount.	Date.
	Inches.	Inches.		Inches.	
January	3.72	+1.11	22	.68	15th
February	3.48	+1.09	28	.48	20th
March	1.04	−1.45	13	.31	1st
April	1.71	−0.37	19	.27	27th
May	1.77	−0.65	18	.27	4—5th
June	2.50	+0.02	15	.56	27th
July	3.78	+1.41	10	1.40	20th
August	4.31	+0.95	23	.74	28th
September	0.40	−2.03	8	.12	29th
October	2.69	−0.72	16	.72	18th
November	5.16	+2.00	22.	89	10th
December	2.70	+0.21	23	.46	15th
Totals	33.26	+1.58	217	1.40	July 20th

* From 9 a.m. on the 1st, including each month the fall during the first nine hours of the succeeding month.

† 24 hours ending 9 a.m. next day.

FORCE AND MOVEMENT OF THE WIND.

AS RECORDED BY THE DINES' RECORDING PRESSURE TUBE ANEMOMETER.

1910.	Mean Daily Movement.	Absol. Max. for one hour.	Date.	Rate in Max. Gust.	Date.	Gales occurred on these dates.
	Miles.	Miles.		Miles.		
January ...	333	34	11th	50	11th	11th and 28th
February ..	397	50	21st	76	21st	14th, 17th, 18th, 19th, 20th, 21st, 22nd and 24th
March ...	298	32	10th	46	18th	10th
April ...	336	34	23rd	49	23rd	—
May ...	315	32	7th	50	5th	5th and 6th
June ...	266	29	28th	43	28th	28th
July ...	323	35	26th	53	26th	6th
August ...	314	48	26th	62	26th	19th, 26th and 27th
September	196	27	3rd	37	3rd	—
October ...	273	40	31st	60	31st	3rd and 31st
November...	272	34	1st	51	1st	1st, 6th, 7th and 17th
December...	358	30	2nd	47	9th	—
Means ...	307	50	Feb. 21st	76	Feb. 21st	Total 24

DIRECTION OF WIND AT BLACKPOOL DURING 1910

OBSERVATIONS 4 TIMES DAILY, AT 9.0 A.M., 1.0 P.M., 6.0 P.M., AND 9.0 P.M.

1910.	N.	N.N.E.	N.E.	E.N.E.	E.	E.S.E.	S.E.	S.S.E.	S.	S.S.W.	S.W.	W.S.W.	W.	W.N.W.	N.W.	N.N.W.	Calm.	No. of Observations.
January ...	3	3	7	4	1	—	6	10	12	6	16	21	12	5	6	11	1	124
February ...	—	1	1	—	1	—	3	17	11	8	28	15	16	1	7	3	—	112
March ...	3	5	6	3	6	4	10	12	13	4	9	7	11	10	14	7	—	124
April ...	3	8	7	4	8	2	2	3	7	5	12	13	15	14	16	1	—	120
May ...	4	3	3	4	19	12	—	—	1	2	3	15	20	11	24	3	—	124
June ...	1	4	12	6	9	3	7	3	2	—	4	10	17	11	25	6	—	120
July ...	4	3	1	5	13	3	4	3	7	2	17	8	10	11	22	11	—	124
August ...	—	2	2	6	8	2	9	12	10	4	12	15	22	10	7	3	—	124
September	4	7	16	4	4	5	11	8	1	—	1	5	16	10	23	5	—	120
October ...	1	9	8	14	28	5	7	10	3	—	6	1	10	3	7	11	1	124
November...	9	6	7	—	9	6	19	9	3	1	3	4	2	15	11	15	1	120
December ...	2	4	3	3	8	2	13	20	10	5	8	9	8	13	13	3	—	124
Totals ...	34	55	73	53	114	44	91	107	80	37	119	123	159	114	175	79	3	1,460

APPENDIX TABLES.

TABLE I.—VITAL STATISTICS (RESIDENTS ONLY).

Year.	Population estimated to middle of each year.	BIRTHS.		TOTAL DEATHS.				Deaths in Public Institutions in District.	Deaths of Non-Residents registered in District	Deaths of Residents registered beyond district.	Nett Deaths at all ages belonging to the District.	
				Under 1 year of age.		Gross Deaths at all ages.						
		Number.	Rate.*	Number.	Rate per 1,000 Births registered.	Number.	Rate.*				Number.	Rate.*
1	2	3	4	5	6	7	8	9	10	11	12	13
1900	50.166	1.268	25.27	204	161	851	16.96	49	131	26	720	14.35
1901	50,750	1.162	22.90	195	168	847	16.69	47	131	23	716	14.11
1902	52,174	1,250	23.96	154	123	796	15.26	45	117	24	679	13 01
1903	53,015	1,218	22.97	165	135	804	15.17	50	121	30	683	12.88
1904	54.338	1,170	21.53	199	170	802	14.76	33	128	28	674	12.40
1905	55,712	1,131	20.30	153	135	809	14.52	52	129	29	680	12.21
1906	57.115	1.023	17 91	143	140	812	14.22	44	109	33	703	12.31
1907	58.431	1.057	18.09	119	113	788	13.49	54	111	36	677	11.59
1908	59.741	1,048	17.54	144	137	881	14.75	60	120	34	761	12.74
1909	61,450	1.026	16.70	114	111	864	14.06	79	85	31	779	12.68
Averages for years 1900-1909......	55.289	1.135	20.72	159	139	825	14.99	51	118	29	707	12.83
1910	60,113	1,006	16.74	110	109	754	12.54	49	68	50	686	11.41

* Rates in Columns 4, 8, and 13, calculated per 1,000 of estimated population.

NOTE.—Column 7 includes the deaths of all Residents occurring either within or without the District, and of all Visitors dying within the District. Column 11 includes deaths of Blackpool Residents in Kirkham Workhouse and elsewhere without the Borough.

TABLE II.

Vital Statistics in Wards (Residents only).

Names of Localities.	1.—CLAREMONT.				2.—TALBOT.				3.—BANK HEY.				4.—BRUNSWICK.				5.—FOXHALL.				6.—WATERLOO.			
Year.	Population estimated to middle of each year.	Births registered.	Deaths at all ages.	Deaths under one year.	Population estimated to middle of each year.	Births registered.	Deaths at all ages.	Deaths under one year.	Population estimated to middle of each year.	Births registered.	Deaths at all ages.	Deaths under one year.	Population estimated to middle of each year.	Births registered.	Deaths at all ages	Deaths under one year.	Population estimated to middle of each year.	Births registered.	Deaths at all ages.	Deaths under one year.	Population estimated to middle of each year.	Births registered.	Deaths at all ages.	Deaths under one year.
	a.	*b.*	*c.*	*d.*	*a.*	*b.*	*c.*	*d.*	*a.*	*b.*	*c.*	*d.*	*a.*	*b.*	*c.*	*d.*	*a.*	*b.*	*c.*	*d.*	*a.*	*b.*	*c.*	*d.*
1900	8,749	180	87	17	11,317	345	185	47	1,926	24	18	1	6,907	165	112	30	14,052	384	230	73	7,215	170	88	21
1901	8,036	177	107	23	12,349	293	202	51	1,910	23	25	5	7,429	164	99	21	14,337	363	197	57	6,689	142	86	24
1902	8,658	199	85	22	12,320	320	190	47	1,905	25	28	1	7,765	147	95	12	14,695	387	203	53	6,831	172	78	13
1903	8,908	171	107	26	12,445	344	188	53	1,920	22	20	3	7,833	146	84	11	14,859	396	175	50	7,050	139	103	15
1904	9,241	179	100	26	12,458	325	177	56	1,927	26	30	6	8,153	135	90	22	15,270	355	194	54	7,289	150	83	24
1905	9,454	162	107	28	12,538	322	183	36	1,914	23	13	1	8,421	114	86	17	15,854	372	219	54	7,531	138	72	8
1906	9,619	143	108	20	12,667	260	179	39	1,889	18	22	2	8,946	133	107	22	16,300	334	196	40	7,694	135	91	11
1907	9,886	165	99	17	12,723	257	132	21	1,939	23	23	8	9,391	129	119	18	16,694	337	207	38	7,798	146	97	15
1908	10,310	143	110	15	12,869	264	191	41	1,883	16	19	—	9,668	150	116	18	17,039	337	223	40	7,972	138	102	20
1909	10,976	160	136	16	13,047	267	207	30	1,790	16	20	2	9,929	149	126	20	17,612	317	206	27	8,096	117	84	11
Average for years 1900–9	9,384	168	105	21	12,473	300	183	42	1,900	22	22	3	8,444	143	103	19	15,671	358	205	49	7,417	145	88	16
1910	10,856	147	104	13	12,645	267	184	35	1,696	15	17	1	9,561	124	97	8	17,354	313	193	39	8,001	140	91	9

TABLE III.

VITAL STATISTICS for Wards.—RESIDENTS ONLY.

WARD.	Population, 1910.	Birth Rate.				Death Rate				Zymotic Rate.			
		1909	1910	1896 to 1900	1901 to 1905	1909	1910	1896 to 1900	1901 to 1905	1909	1910	1896 to 1900	1901 to 1905
Claremont ...	10,856	14.58	13.54	23.19	20.14	12.39	9.58	11.12	11.46	0.46	0.55	1.55	1.41
Talbot	12,645	20.46	21.12	32.04	25.82	15.87	14.55	17.39	15.14	1.46	1.27	2.87	1.94
Bank Hey ...	1,696	8.94	8.84	13.69	12.43	11.17	10.02	11.18	12.74	0.56	0.59	0.64	0.73
Brunswick ...	9,561	15.01	12.97	24.50	17.95	12.69	10.15	15.57	11.51	0.60	0.63	2.10	1.05
Foxhall... ...	17,354	18.00	18.04	28.16	25.00	11.70	11.12	14.43	13.17	1.19	0.58	2.39	1.29
Waterloo ...	8,001	14.45	17.50	23.74	21.01	10.38	11.37	12.84	11.97	1.11	0.62	1.94	0.99

TABLE VII. (Being Table V. of the Local Government Board).

INFANTILE MORTALITY during the year 1910. Deaths from stated Causes in Weeks and Months under One Year of Age.

CAUSE OF DEATH.	1st Day.	2nd Day.	3rd Day.	4th Day.	5th Day.	6th Day.	7th Day.	Under 1 Week.	1-2 Weeks.	2-3 Weeks.	3-4 Weeks.	Total under 1 Month.	1-2 Months.	2-3 Months.	3-4 Months.	4-5 Months.	5-6 Months.	6-7 Months.	7-8 Months.	8-9 Months.	9-10 Months.	10-11 Months.	11-12 Months.	Total Deaths under 1 Year.
All Causes: Certified	14	2	1	1	4	1	1	24	3	3	10	40	9	12	6	6	5	5	6	4	4	5	5	107
All Causes: Uncertified	1	..	..	..	..	..	..	1	..	1	..	2	1	..	..	..	..	..	..	..	..	..	..	3
COMMON INFECTIOUS DISEASES—																								
Small-pox	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Chicken-pox	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Measles	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Scarlet Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Diphtheria (including Membranous Croup)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Whooping Cough	..	..	..	..	..	..	..	..	..	..	1	1	1	..	..	..	..	1	..	2	..	..	2	7
DIARRHŒAL DISEASES—																								
Diarrhœa, all forms	..	..	..	..	..	..	..	..	..	1	1	2	3	1	1	..	1	1	2	1	1	..	1	14
Enteritis, Muco-enteritis, Gastro-enteritis	..	..	..	..	..	..	..	..	..	..	..	..	1	2	..	1	..	..	1	..	..	..	..	5
Gastritis, Gastro-intestinal Catarrh	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1
WASTING DISEASES—																								
Premature Birth	9	1	1	..	3	1	..	15	..	..	1	16	..	..	..	..	..	..	..	..	..	..	..	16
Congenital Defects	1	..	..	..	1	..	..	2	..	..	1	3	..	..	1	..	..	..	..	..	..	..	..	4
Injury at Birth	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Want of Breast-milk, Starvation	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Atrophy, Debility, Marasmus	2	..	..	1	..	..	..	3	2	1	3	9	2	2	2	1	..	1	1	..	1	1	..	20
TUBERCULOUS DISEASES—																								
Tuberculous Meningitis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	2
Tuberculous Peritonitis: Tabes Mesenterica	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	1	..	1	4
Other Tuberculous Diseases	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
OTHER CAUSES: Erysipelas	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
OTHER CAUSES: Syphilis	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	1
OTHER CAUSES: Rickets	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
OTHER CAUSES: Meningitis (*not Tuberculous*)	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	1	..	3
OTHER CAUSES: Convulsions	1	1	..	..	..	..	..	2	1	1	1	5	..	2	..	1	1	..	..	..	..	..	..	9
OTHER CAUSES: Bronchitis	..	..	..	..	..	..	..	..	..	1	1	2	2	3	1	1	..	1	1	1	..	1	..	13
OTHER CAUSES: Laryngitis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
OTHER CAUSES: Pneumonia	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	1
OTHER CAUSES: Suffocation, overlying	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
OTHER CAUSES: Other causes	1	..	..	..	..	..	1	2	..	..	..	2	..	1	..	1	1	1	1	..	1	..	1	9
Want of attention at Birth	1	..	..	..	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1
	15	2	1	1	4	1	1	25	3	4	10	42	10	12	6	6	5	5	6	4	4	5	5	110

Births in the year—Legitimate, 938; Illegitimate, 68. Deaths from all Causes at all Ages, 740. Population estimated to middle of 1910. 60,113. Deaths in the year of—Legitimate Infants, 91; Illegitimate Infants, 19.

TABLE VIII.

Length of Residence of Persons who died in Blackpool during the year 1910.

Age Group.	Deaths.	Length of Residence in Blackpool															Born in Blackpool.
		7 days and under.	14 to 7 days.	1 month to 14 days.	3 months to 1 month.	6 months to 3 months.	9 months to 6 months.	12 months to 9 months.	2 to 1 year.	3 to 2 years.	4 to 3 years.	5 to 4 years.	15 to 5 years	25 to 15 years	Over 25 years	Indefinite.	
Under twelve months ...	110	4	2	1	1	2	1	—	—	—	—	—	—	—	—	—	99
1 year and under 5 ...	48	—	2	—	3	1	1	—	2	1	1	—	—	—	—	—	37
5 years and under 15 ...	18	—	1	—	1	—	—	—	2	—	—	—	2	—	—	—	12
15 years and under 25 ...	23	3	—	2	2	—	—	—	1	—	—	—	5	3	—	—	7
25 years and under 65 ...	328	12	9	7	6	6	4	3	9	15	10	16	92	73	42	2	22
65 years and over ...	227	2	1	6	2	2	3	—	6	3	8	11	63	50	66	—	4
Totals	751	21	15	16	15	11	9	3	20	19	19	27	162	126	108	2	181

TABLE X.

Deaths from Various Causes for 10 Years. (RESIDENTS ONLY.)

CAUSES.	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910
	50,750	52,174	53,015	54,338	55,712	57,115	58,431	59,741	61,450	60,113
Measles	4	11	5	10	3	7	1	14	5	4
Scarlet Fever	15	5	8	5	6	2	4	4	12	2
Whooping Cough	10	3	19	2	3	6	5	10	6	10
Diphtheria and Membranous Croup ...	31	17	5	13	11	11	10	9	23	4
Enteric Fever	12	12	8	5	6	6	9	7	6	3
Phthisis	37	45	39	47	51	39	50	47	45	38
Other forms Tuberculosis	21	21	12	17	21	27	22	17	17	18
Epidemic Influenza	2	3	9	1	10	14	11	12	19	4
Diarrhœa	35	9	23	35	27	32	9	23	9	21
Cancer	54	47	52	41	54	54	52	51	59	46
Premature Birth and Congenital Defects	22	35	33	34	42	35	21	35	33	20
Senile Decay	20	26	35	27	26	34	36	50	36	48
Apoplexy	34	35	35	35	42	46	51	70	42	63
Convulsions	7	9	6	14	8	9	10	8	8	9
Other diseases of Nervous System ...	21	29	19	24	26	29	34	22	27	24
Valvular and other Diseases of Heart	65	58	75	55	67	62	56	76	89	71
Bronchitis	45	47	38	39	33	31	55	47	77	72
Pneumonia	52	47	50	52	49	51	55	54	45	24
Diseases of Digestive System	52	47	54	51	50	45	51	50	51	44
Nephritis and Bright's Disease	15	20	22	12	26	29	26	28	37	28
Deaths from Violence	20	21	18	32	21	28	17	22	23	16
Debility, &c.	40	32	27	38	13	14	13	15	20	20

TABLE XI.

VITAL STATISTICS of Whole District during 1910 and previous years (Residents and Visitors).
(Being Table I. of the Local Government Board).

Year.	Population estimated to middle of each year.	Births.		Total Deaths Registered in District.				Total Deaths in Public Institutions in District.	‖ Deaths of Non-Residents registered in Public Institutions in the District.	Deaths of Residents registered in Public Institutions beyond the District.	Nett Deaths at all ages belonging to the District.	
				Under 1 year of age.		At all ages.						
		Number.	Rate.*	Number.	Rate per 1000 Births registered.	Number.	Rate.*				Number.	Rate.*
1	2	3	4	5	6	7	8	9	10	11	12	13
1900	50,166	1,268	25.27	204	161	825	16.44	49	9	26	842	16.78
1901	50,750	1,162	22.90	195	168	824	16.24	47	11	23	836	16.47
1902	52,174	1,250	23.96	154	123	772	14.80	45	16	23	779	14.93
1903	53,015	1,218	22.97	165	135	774	14.60	50	13	27	788	14.86
1904	54,338	1,170	21.53	198	169	774	14.24	33	6	26	794	14.61
1905	55,712	1,131	20.30	152	134	780	14.00	52	16	29	793	14.23
1906	57,115	1,023	17.91	142	139	779	13.64	44	16	27	790	13.83
1907	58,431	1,057	18.09	119	113	†747	12.78	54	17	33	763	13.06
1908	59,741	1,048	17.54	144	137	847	14.18	60	14	32	865	14.48
1909	61,450	1,026	16.70	114	111	833	13.56	79	8	31	856	13.93
Average for years 1900–09	55,289	1,135	20.72	159	139	796	14.45	51	13	28	811	14.72
1910	60,113	1,006	16.74	110	109	704	11.71	49	12	48	740	12.31

† This figure excludes 5 deaths from drowning of temporary visitors.

* Rates in Columns 4, 8, and 13 calculated per 1,000 of estimated population.

NOTE.—The deaths included in Column 7 of this Table are the whole of those registered during the year as having actually occurred within the District or Division. The deaths included in Column 12 are the number in Column 7, corrected by the subtraction of the number in Column 10 and addition of the number in Column 11.

By the term "Non-residents" is meant persons brought into the district on account of sickness or infirmity, and dying in public institutions there; and by the term "Residents" is meant persons who have been taken out of the District on account of sickness or infirmity, and have died in public institutions elsewhere.

TABLE XII.

Vital Statistics of Separate Localities in 1910 and previous years (Residents and Visitors).
(Being Table II. of the Local Government Board).

Names of Localities.	1.—CLAREMONT.				2.—TALBOT.				3.—BANK HEY.				4.—BRUNSWICK.				5.—FOXHALL.				6.—WATERLOO.			
Year.	Population estimated to middle of each year.	Births registered.	Deaths at all ages.	Deaths under one year.	Population estimated to middle of each year.	Births registered.	Deaths at all ages.	Deaths under one year.	Population estimated to middle of each year.	Births registered.	Deaths at all ages.	Deaths under one year.	Population estimated to middle of each year.	Births registered.	Deaths at all ages.	Deaths under one year.	Population estimated to middle of each year.	Births registered.	Deaths at all ages.	Deaths under one year.	Population estimated to middle of each year.	Births registered.	Deaths at all ages.	Deaths under one year.
	a.	b.	c.	d.	a.	b.	c.	d.	a.	b.	c.	d.	a.	b.	c.	d.	a.	b.	c.	d.	a.	b.	c.	d.
1900	8,749	180	114	19	11,317	345	199	48	1,926	24	24	2	6,907	165	135	34	14,052	384	262	78	7,215	170	108	23
1901	8,036	177	135	27	12,349	293	226	54	1,910	23	28	5	7,429	164	120	22	14,337	363	223	62	6,689	142	104	25
1902	8,658	199	110	23	12,320	320	204	50	1,905	25	32	1	7,765	147	100	12	14,695	387	237	54	6,831	172	96	14
1903	8,908	171	126	26	12,445	344	202	56	1,920	22	34	3	7,833	146	102	13	14,859	396	211	52	7,050	139	113	15
1904	9,241	179	134	27	12,458	325	198	59	1,927	26	38	8	8,153	135	108	22	15,270	355	217	56	7,289	150	99	26
1905	9,454	162	131	28	12,538	322	196	36	1,914	23	19	1	8,421	114	104	18	15,854	372	248	58	7,531	138	95	11
1906	9,619	143	132	20	12,667	260	187	40	1,889	18	28	3	8,946	133	124	25	16,300	334	219	43	7,694	135	100	11
1907	9,886	165	125	17	12,723	257	144	21	1,939	23	27	8	9,391	129	136	19	16,694	337	224	39	7,798	146	107	15
1908	10,310	143	142	18	12,869	264	201	42	1,883	16	23	—	9,668	150	136	18	17,039	337	248	42	7,972	138	115	24
1909	10,976	160	152	18	13,047	267	220	30	1,790	16	25	2	9,929	149	140	22	17,612	317	225	31	8,096	117	94	11
Average for years 1900–9	9,384	168	130	22	12,473	300	198	44	1,900	22	28	3	8,444	143	121	20	15,671	358	231	51	7,417	145	103	18
1910	10,856	147	124	13	12,645	267	187	36	1,696	15	21	1	9,561	124	107	10	17,354	313	206	41	8,001	140	95	9

Deaths of Residents occurring in Public Institutions beyond the District are included in Sub-columns *c* of this Table, and those of Non-residents registered in Public Institutions in the District excluded. (See Note on Table XI. as to meaning of terms " Resident " and " Non-resident.")

Deaths of Residents occurring in Public Institutions, whether within or without the District, are allotted to the respective localities according to the addresses of the deceased.

TABLE XIII.

Cases of Infectious Disease notified during the Year 1910.

(Table III. of the Local Government Board).

NOTIFIABLE DISEASE.	Cases notified in whole district.							Total cases notified in each locality.							No. of cases removed to Hospital from each locality.						
	At all ages	At ages—Years.																			
		Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 65.	65 and upwards.	Claremont.	Talbot—(H).	Bank Hey.	Brunswick.	Foxhall.	Waterloo.	Total.	Claremont.	Talbot—(H).	Bank Hey.	Brunswick.	Foxhall.	Waterloo.	Total cases removed to Hospital.
Small-pox	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......
Cholera	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......
Diphtheria (including Membranous croup)	41	......	5	30	3	3	......	4	8	......	4	20	5	41	3	4	......	2	17	3	29
Erysipelas	20	2	......	1	1	13	3	5	4	......	2	7	2	20	......	......	......	1	......	......	1
Scarlet Fever	181	......	46	122	9	4	......	45	32	1	32	50	21	181	36	26	1	28	48	17	156
Typhus Fever	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......
Enteric Fever	12	......	......	4	2	6	......	1	4	......	1	6	......	12	1	4	......	......	4	......	9
Relapsing Fever	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......
Continued Fever	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......
Puerperal Fever	7	......	......	......	2	5	......	1	2	......	......	4	......	7	......	......	......	3	......	......	3
Plague	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......
Measles	660	20	246	378	10	6	......	123	72	6	61	313	85	660	4	6	3	......	5	1	19
Totals	921	22	297	535	27	37	3	179	122	7	100	400	113	921	44	40	4	34	74	21	217

NOTE.—Mark (H) is the locality in which the Isolation Hospital is situated.

TABLE XIV. (Being Table IV. of the Local Government Board). Causes of, and Ages at, Death during Year 1910

Causes of Death.	Deaths at the subjoined ages of "Residents" whether occurring in or beyond the District.							Deaths at all ages of "Residents" belonging to Localities, whether occurring in or beyond the District.							Total Deaths whether of "Residents" or "Non-Residents" in Public Institutions in the District.
	All ages.	Under 1 year.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 65.	65 and upwards.	Claremont Ward.	Talbot Ward.	Bank Hey Ward.	Brunswick Ward.	Foxhall Ward.	Waterloo Ward.	Total.	
Small-pox	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Measles	4	..	4	..	..	..	..	1	2	..	1	..	..	4	..
Scarlet Fever	2	..	..	2	..	..	..	..	2	..	..	..	..	2	2
Whooping-cough	10	7	3	..	..	..	..	2	1	..	2	3	2	10	..
Diphtheria (including Membranous Croup)	4	..	2	2	..	..	..	2	1	..	..	1	..	4	2
Croup	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Fever — Typhus	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Fever — Enteric	3	..	..	..	1	2	..	..	..	..	1	1	1	3	4
Fever — Other continued	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Epidemic influenza	4	..	..	..	1	1	2	1	1	..	..	1	1	4	..
Cholera	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Plague	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Diarrhœa	20	14	2	..	..	4	..	1	11	1	2	3	2	20	..
Enteritis	11	5	1	..	..	3	2	3	1	..	1	5	1	11	..
Gastritis	2	1	1	..	..	..	..	..	..	..	..	2	..	2	..
Puerperal Fever	6	..	..	..	1	5	..	1	1	..	..	4	..	6	2
Erysipelas	2	..	..	..	..	1	1	..	1	..	..	1	..	2	..
Phthisis (Pulmonary Tuberculosis)	43	..	..	1	8	34	..	9	11	..	3	12	8	43	..
Other tuberculous diseases	21	6	10	..	..	5	..	3	1	3	3	6	5	21	..
Cancer, malignant disease	50	..	..	..	..	32	18	8	7	..	12	13	10	50	2
Bronchitis	74	13	12	..	..	15	34	9	25	1	8	23	8	74	1
Pneumonia	29	1	2	2	1	19	4	4	10	1	4	7	3	29	1
Pleurisy	4	..	..	1	..	3	..	..	2	..	..	1	1	4	2
Other diseases of respiratory organs	8	..	2	2	..	1	3	1	4	..	1	2	..	8	2
Alcoholism, cirrhosis of liver	12	..	..	..	..	10	2	2	2	1	3	1	3	12	..
Venereal diseases	1	1	..	..	..	..	..	1	..	..	..	..	..	1	..
Premature birth	16	16	..	..	..	..	..	4	4	..	1	5	2	16	..
Diseases and accidents of parturition	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Heart diseases	82	..	..	2	2	47	31	14	20	3	13	26	6	82	4
Accidents	15	2	3	..	1	7	2	3	4	..	1	5	2	15	6
Suicides	5	..	..	..	..	4	1	1	1	..	1	1	1	5	2
All other causes	312	44	5	5	5	128	125	54	75	11	50	83	39	312	19
All causes	740	110	47	17	20	321	225	124	187	21	107	206	95	740	49

TABLE XIX.

Table giving the total number of Births and Deaths (Residents and Visitors) with their corresponding rates in each quarter of the year 1910 :—

Quarter ending	Births.	Birth Rate.	Deaths.	Death Rate.	Deaths under one year.	Infant Mortality.	Seven Principal Zymotic Diseases	Zymotic Rate.
2nd April ...	250	16.69	212	14.15	27	108.00	13	0.87
2nd July ...	258	17.23	168	11.22	17	65.89	5	0.33
1st October ...	268	17.89	178	11.88	26	97.01	17	1.14
31st December	230	15.36	196	13.09	40	173.91	14	0.93
Year	1,006	16.74	754	12.54	110	109.34	49	0.82

TABLE A.

Analysis of Mortality (Residents and Visitors).

		Annual rate of Mortality from							Percentage of Total Deaths.						
YEAR.	BIRTH RATE.	All Causes (gross D.R.)	All Causes (Corrected for Visitors).	Seven principal Zymotics.	Pulmonary Consumption.	Other Diseases of Respiratory Organs.*	Diseases of Circulatory System.†	Proportion of Deaths under 1 year to 1,000 births (Infant Mortality).	Of Infants under 1 year.	Under 5 year	65 years and over.	From seven principal Zymotics.	From Pulmonary Consumption.	From other Diseases of Respiratory Organs.	From Diseases of Circulatory System.
1886-90	25.18	17.6	15.4	2.11	1.21	3.19	1.40	150.0	21.5	34.3	20.8	12.3	6.9	18.3	8.1
1891-95	23.91	18.6	15.3	2.06	1.14	3.91	1.51	183.3	23.82	33.8	18.9	10.88	6.24	20.74	8.2
1896-1900	26.46	17.52	14.42	2.50	1.12	3.21	1.50	174.9	26.35	35.4	19.2	14.25	6.39	18.23	8.56
1901-1905	22.33	15.28	12.92	1.53	1.04	2.22	1.55	146.37	21.32	29.81	21.02	9.91	6.86	14.50	10.15
1891	22.36	20.0	18.2	2.03	1.2	5.4	1.60	192.6	21.5	34.1	20.1	10.2	6.3	27.0	8.1
1892	24.01	18.2	15.3	0.89	1.2	3.81	1.49	160.4	20.9	29.3	20.9	4.9	6.7	20.9	8.2
1893	22.47	18.7	14.9	2.68	0.98	4.14	1.51	210.3	25.1	33.2	18.6	14.1	5.2	22.1	8.0
1894	23.93	15.8	11.9	1.38	1.08	2.21	1.48	159.8	24.1	33.2	17.3	8.7	6.8	13.9	9.3
1895	26.77	20.06	16.33	3.31	1.24	3.98	1.43	206.0	27.49	39.3	17.4	16.47	6.19	19.76	7.10
1896	25.66	17.19	13.84	1.99	1.15	3.06	1.44	158.5	23.6	32.9	21.3	11.6	6.6	17.7	8.4
1897	26.25	18.57	15.29	2.78	1.07	3.75	1.62	191.3	27.0	37.8	18.0	15.0	5.8	20.1	8.7
1898	27.74	16.99	13.85	2.99	1.14	3.04	1.41	177.7	29.0	37.3	19.4	17.62	6.73	17.87	8.3
1899	27.34	17.88	14.77	2.75	1.36	3.15	1.39	184.4	28.19	36.5	18.1	15.42	7.65	17.63	7.77
1900	25.27	16.96	14.35	2.23	0.88	3.03	1.63	160.88	23.97	32.55	19.15	13.16	5.17	17.86	9.63
1901	22.90	16.69	14.11	2.38	0.97	2.62	1.62	167.81	23.02	32.59	18.42	14.29	5.79	15.70	9.68
1902	23.96	15.26	13.01	1.23	1.07	2.43	1.51	123.2	19.35	27.76	20.23	8.04	7.04	15.95	9.92
1903	22.97	15.17	12.88	1.47	1.00	2.15	1.83	135.47	20.52	28.48	23.26	9.70	6.59	14.18	12.06
1904	21.53	14.76	12.40	1.40	1.05	2.10	1.21	170.09	24.81	33.79	19.33	9.48	7.11	14.21	8.23
1905	20.30	14.52	12.21	1.17	1.13	1.81	1.58	135.28	18.91	26.45	23.98	8.03	7.79	12.48	10.88
1906	17.91	14.22	12.31	1.23	0.91	1.86	1.28	139.78	17.61	25.37	23.65	8.62	6.40	13.05	8.99
1907	18.09	13.49	11.59	0.70	1.04	2.29	1.39	112.58	15.10	21.70	26.90	5.20	7.74	17.01	10.28
1908	17.54	14.75	12.74	1.26	0.92	1.92	1.69	137.40	16.34	22.36	27.70	8.51	6.24	13.05	11.46
1909	16.70	14.06	12.68	1.16	0.83	2.60	1.71	111.11	13.19	19.68	28.70	8.22	5.90	18.52	12.15
1910	16.74	12.54	11.41	0.82	0.72	1.91	1.45	109.34	14.59	20.95	30.11	6.50	5.70	15.25	11.54

* Up to 1900 only deaths from Pneumonia, Bronchitis, and Pleurisy were included.

† Up to 1900 only Valvular and other diseases of Heart were included.

TABLE B.

Births and Deaths (Residents) in each Quarter of the Year 1910 :—

Quarter ending	Births.	Deaths from all causes.	Seven principal Zymotic Diseases.	Total Deaths under 1 year.	Under 5 years.	65 years and over.
2nd April	250	200	13	25	37	65
2nd July	258	151	4	17	28	45
1st October . .	268	149	14	24	35	47
31st December ...	230	186	13	39	50	58
YEAR	1,006	686	44	105	150	215

TABLE C.

Showing the several Death Rates (Residents) for each quarter of the year 1910 :—

Quarter ending	Death Rate.		Birth Rate.	Infant Mortality.	Per cent. of Total Deaths of Deaths.			
	From all causes.	From 7 Zymotics.			From 7 Zymotics.	Of Infants under 1 year.	Of Children under 5 years.	Of Persons 65 years and over.
2nd April ...	13.35	0.87	16.69	100.00	6.50	12.50	18.50	32.50
2nd July ...	10.08	0.27	17.23	65.89	2.65	11.26	18.54	29.80
1st October ...	9.95	0.93	17.89	89.55	9.40	16.11	23.49	31.54
31st December	12.42	0.87	15.36	169.57	6.99	20.97	26.88	31.18

TABLE D (Residents only).

Showing the proportion of deaths of children under one, of children under five, and of persons over 65 years of age, to total deaths.

YEAR.	NUMBER OF DEATHS.					PERCENTAGE OF TOTAL DEATHS OF DEATHS.		
	Total Deaths.	Under one year of age.	Under 5 years of age.	65 years and over.	From 7 Zymotics.	Under one year of age.	Under 5 years of age.	65 years and over.
1893	421	123	158	76	63	29.22	37.53	18.05
1894	361	96	134	68	31	26.59	37.12	18.84
1895	538	169	232	94	93	31.41	43.12	17.47
1896	507	137	182	117	61	27.02	35.90	23.08
1897	614	178	249	115	95	28.99	40.55	18.73
1898	629	206	260	120	113	32.75	41.34	19.08
1899	712	228	289	124	114	32.02	40.59	17.42
1900	720	189	251	144	99	26.25	34.86	20.00
1901	716	181	251	135	107	25.28	35.06	18.85
1902	679	148	208	132	57	21.80	30.63	19.44
1903	683	158	212	159	71	23.13	31.04	23.28
1904	674	188	251	130	70	27.89	37.24	19.29
1905	680	144	197	158	56	21.18	28.97	23.24
1906	703	134	192	171	64	19.06	27.31	24.32
1907	677	117	162	188	38	17.28	23.93	27.77
1908	761	134	183	218	67	17.61	24.05	28.65
1909	779	106	156	223	61	13.61	20.03	28.63
1910	686	105	150	215	44	15.31	21.87	31.34

TABLE E.

	Estimated Population.	Rate per 1,000.				Total Births.	Total Deaths.	Total Infant Mortality.
		Births.	Deaths.		Seven Zymotics.			
			Gross.	Corrected for Visitors.				
1879	15,000	36.6	17.8	...	3.06	401	268	122
1880	15,000	34.0	22.7	...	5.0	510	341	206
1881	14,229	30.6	18.6	15.8	1.2	436	265	126
1882	16,000	30.0	22.9	21.0	2.8	480	367	221
1883	16,000	30.0	19.5	16.6	1.6	480	312	140
1884	17,212	29.8	19.0	17.1	2.14	513	328	146
1885	18,031	27.4	.17.2	15.2	1.71	494	311	174
1886	19,550	25.9	18.9	16.5	2.71	508	370	152
1887	20,380	25.3	16.0	14.0	2.45	516	327	116
1888	20,540	24.5	15.6	13.2	1.65	504	322	137
1889	21,661	26.5	18.7	16.5	1.9	575	406	169
1890	24,312	23.7	18.5	16.5	1.9	577	451	182
1891	25,310	22.3	20.0	18.2	2,03	566	507	193
1892	26,740	24.0	18.2	15.2	0.90	642	488	160
1893	28,389	22.4	18.7	14.8	2.64	638	532	210
1894	30,337	23.9	15.8	11.9	1.38	726	481	160
1895	32,943	26.7	20.06	16.33	3.31	882	661	206
1896	36,638	25.7	17.19	13.84	1.99	940	630	159
1897	40,234	26.25	18.54	15.26	2.78	1,056	746	191
1898	45,414	27.74	16.99	13.85	2.99	1,260	772	178
1899	48,200	27.34	17.88	14.77	2.75	1,318	862	184
1900	50,166	25.27	16.96	14.35	2.23	1,268	851	161
1901	50,750	22.90	16.69	14.11	2.38	1,162	847	168
1902	52,174	23.96	15.26	13.01	1.23	1,250	796	123
1903	53,015	22.97	15.17	12.88	1.47	1,218	804	135
1904	54,388	21.53	14.76	12.40	1.40	1,170	802	170
1905	55,712	20.30	14.52	12.21	1.17	1,131	809	135
1906	57,115	17.91	14.22	12.31	1.23	1,023	812	140
1907	58,431	18.09	13.49	11.59	0.70	1,057	788	113
1908	59,741	17.54	14.75	12.74	1.26	1,048	881	137
1909	61,450	16.70	14.06	12.68	1.16	1,026	864	114
1910	60,113	16.74	12.54	11.41	0.82	1,006	754	110